

...THE...

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...EDITED BY...

Frank S. Parsons, M. D.

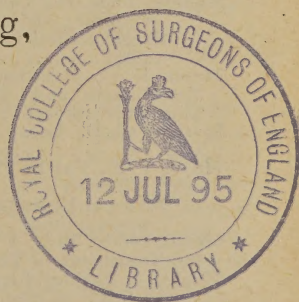
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PHILADELPHIA, JANUARY 5, 1895.

WHOLE No. 852.

Original.

A PRACTICAL THEORY AND TREATMENT OF PULMON- ARY TUBERCULOSIS.

BY FRANK S. PARSONS, M. D.,
PHILADELPHIA, PA.

Editor of The Times and Register.

Is pulmonary tuberculosis curable? Undoubtedly! When? At any time before destructive changes have advanced to a point beyond which the organism is incapable of sustaining life; or, before the primary cause of such changes in retrograde metamorphosis has become lost in the secondary pathological processes, which of themselves, would advance the organism toward ultimate dissolution. Of course, the curability of any disease, in a measure, depends upon an intimate knowledge of its causation and a rectifying of disturbed relations, and, in this, the physician must have the hearty co-operation of his patient. The latter is not always an easy matter to bring about in tuberculosis, for persons afflicted with this disease are prone to disbelieve the diagnosis of the physician, in the forlorn hope that he may be mistaken, or that it is quite impossible for them to become the victims of so dangerous a malady.

It is not my idea, in presenting this paper before the profession, to add to the general confusion, which now reigns, regarding tuberculosis; nor to attempt to laud any new methods above others in vogue; but, I believe, a clearer light may be thrown upon the etiology and treatment of this disease, based upon the successes and failures of the past, and the recognition of the primitive condition which leads to the development of pulmonary tubercles.

Of one thing I am quite confident, that is, we may search and search in vain for the antidote, or specific medication in tuberculosis, unless we

get off the track of the microbe, and develop the cause for the underlying condition, upon which the development of all bacteria must depend.

We should be thankful for the work of the bacteriologist; the researches of this class of men have taught us much, although the germ has been the uppermost theme, and its products of toxines and toxalbumens, as the misty clouds which obscure the light of underlying pathology, have given us doubtful ideas regarding the etiology of disease. We have lost sight of the chemical composition of man, and the fact that disease is only a chemical decomposition, in the universal furor after a specific germ, the phenomena of which may be observed in various media, in and outside the body. We have been scientifically brought face to face with that ancient but burning question as to which was first, the chicken or the egg? We are conscientiously taught that no disease can develop except from its germ, and that no germ can develop except from its disease.

In view of the many vaunted methods of treatment in cases of pulmonary tuberculosis, some of which have certain values, others of which are worse than useless, we may well look deeper into the underlying phenomena of this disease, and ascertain, if possible, the primitive causes, the earlier symptoms, and base on them the more radical treatment.

In the first place, it is to be borne in mind that no two cases of pulmonary tuberculosis should receive identical treatment, solely because they are tubercular cases. Personal idiosyncrasies must be taken into account, modes and circumstances of life, the stage of the disease, and a thousand minor details, which the well-informed physician considers and governs his treatment accordingly.

CONCERNING THE ETIOLOGY OF TUBERCULOSIS.

The developments from the experimental inoculation of animals with cultured tubercle bacilli, during the past decade, have gone so far that the profession is now beginning to see that there is yet considerable to be learned concerning the causation of tuberculosis. In fact, it has been evident for some time that we have allowed the bacillus craze to get beyond our better judgment.

It cannot be denied that the tubercle bacillus plays an important part in the phenomenal expression, if not the etiology of tuberculosis, but the facts are daily being brought to light which tend to prove that the bacillus alone, as a causative agent in this disease, is as inefficient as a grain of wheat is ungerminative without sunlight, air and moisture.

When is considered the impunity with which colonies of tubercle bacilli have been swallowed, we must fall back on the certainty of a pre-existing condition, which, when present, offers favorable influence for the development of the bacilli, and on which the latter depend for support; or, otherwise, that the bacteria are a product of the disease, and causative only as they have the power of reproducing themselves, and, when in great numbers, of acting as foreign bodies. That tubercle bacilli reproduce themselves is not doubted, but this simple fact does not argue anything, as it is no more than does the animal kingdom in general. If they produce toxalbumens, as is asserted, it may well be asked if anyone knows what a toxalbumen is, and the exact effect on the human organism? This no one knows at present, and it is not always apparent that the term is more than a cloak for ignorance, or to cover a theory that there must be some toxic product from bacteria in the albuminous elements of the blood to cause specific disease. For our purpose, then, the tubercle bacillus, per se, can act only as a foreign body.

If, before the appearance of tubercle bacilli in this disease, there be a condition upon which the causation depends (and there seems to be

no doubt that this is the case) a short consideration of the anatomical and physiological relations of the circulation will, I believe, demonstrate how such condition may arise, and of what it must necessarily consist.

Hardly an autopsy is made without it is seen that sometime during the life of the subject tubercles had been present in the lung, or in other tissues of the body, which tubercles had resolved, or had been discharged. We know that to obtain cicatricial repair of lung tissue, a suppurative process must have coexisted, and that suppuration never takes place where there is not interference with, or stasis of the circulation of a part involved. In other words, there is a loss of normal correlation between the supply of arterial blood, carrying oxygen and nutrition to the part, and the venous blood, bearing away the carbonic acid gas and waste tissue elements. The waste is carried by the circulation to the several organs in the animal economy best calculated to excrete it, and the venous blood becomes reoxidized in the lungs, losing its carbon dioxide.

Essentially, then, perfect tissue repair is one with perfect circulation, and, conversely, any stasis to the circulation prevents perfect repair. Especially is this true of either venous or lymphatic stasis.

Any suppurative action must have origin in an obstruction to circulation in the part affected, and resolution occurring during any stage depends on the re-establishing of normal correlation in the entire circulation of such diseased tissue. Abscess formation is nature's way of ridding tissues of abnormal waste when the circulation is impeded.

But circulation in the animal system is a complex phenomenon, physiologically of two kinds, afferent and efferent; anatomically of three kinds, arterial, which is superabundantly generous for nutrition; venous, which is inadequate for the removal of all the excess; lymphatic, which supplements the office of the veins in removing waste. A vigorously acting lymphatic system precludes danger from tissue stasis in rapidly wasting parts, while inactivity of the

system implies obstruction from stasis.

This point was admirably illustrated by the eminent oral surgeon, Dr. James E. Garretson, several years back, in a paper read before the Pathological Society of Philadelphia, but which has never been published to my knowledge. The illustration draws attention to a circle, as representing a part, or every part of the human body, in the continuous process of building and razing. Material is brought to it. Rubbish is to be taken away. Debris calls for the work of the scavenger acting as supernumerary to the removal of rubbish. These bringers and takers are the arteries, veins and lymphatics. The first brings material; brings it in excess. The second carries away the excess; carries away the rubbish as well. The third cleans up generally.

It is this third factor in the circulation that most concerns us in the etiology of tuberculosis, and a brief consideration of the functions of the lymphatic system will aid in the clear understanding of their relation to the causation of disease.

First, inquiry as to the relation of the lymphatics with the secretory system of glands develops the fact that both the conglobate and racemose varieties have identical offices of excremental and recremental signification. The lymphatic system, therefore, must be one whose functions imply the taking of material from a relation with parts that do not need it, and placing it in relation with parts that do; i. e., the lymphatics take care of excess of nutritious elements and return them to the general circulation.

We may logically distinguish the lacteals and lymphatics as belonging to different systems. It is true that both characters of vessels hold pabulum, a fact which does not argue against the lymphatic as being a system, the office of which is purely emunctory; for the pabulum found in these vessels, that is not excreta in the strict sense, is so in significance, being an excess of nutritional material which would speedily assume the form of an irritant were it

not removed to a new situation; as implied in its restoration to the general circulation.

The lymphatic system, then, excluded from the lacteals, being accepted as primal emunctory organs, it must follow that glands like the pancreas, liver, kidneys, etc., must be considered as secondary, or excremental emunctories.

Bile, urine, perspiration and the secretion of all the other excrementitious glands (as physiological meaning is given the word excrement) are phenomena of the blood, and are dependent on tissue metamorphoses. Tissue metamorphoses ceasing, secondary secretion ceases also, and death ensues. Tissue metamorphoses ceases to be physiological in proportion as the lymphatic system becomes pathological; that is, tissue metamorphoses is not an act in relation with racemose glands.

Reverting to our first corollary, that perfect tissue repair is one with perfect circulation, it is now seen that perfect health is identical with perfect excretory function, or, in other words, with perfect elimination.

Again, considering our converse proposition, we may now also see how default in lymphatic action is the starting point out of which may arise many phenomena of disease.

The pathological phenomena of tubercle, relating to the gray or granular and the yellow or caseous matter, is familiar to all; but what is tubercle, and whence does it come?

It is to be argued that primarily tubercle is a thing having no objective nature, in the sense that the poison of a rattlesnake, introduced through a bite to the system, is a thing possessed of objectivity. Neither can it be similarly said of the tubercle bacillus. Tubercle, if not objective, must be a subjective condition, the subjective lying primarily with a perversion of the lymphatic system.

The acceptance of these last two propositions brings us to another corollary, viz., tuberculosis is not a disease, but a symptom—a symptom of lymphatic disturbance or stasis.

For the proving of the above prop-

osition let us consider scrofulosis, struma and lymphoma.

I am aware that there are those who refuse to believe scrofulosis to be identical with tuberculosis, but that they draw the line of demarkation too finely, and that both terms are synonymous with the same condition I trust we shall see hereafter.

Scrofulosis, all will agree, divides its expression into two forms—surgical and medical—or lymphoma and struma. By the term lymphoma is meant a tumor of a lymphatic gland, hypertrophied by reason of interference with its efferent circulation. All such tumors sooner or later express interference with lymphatic circulation by the effusion of lymph into the surrounding tissues. A lymphoma is scrofula localized. Struma implies torpidity of the lymphatic circulation at large, and is scrofula generalized.

A scrofulous patient is full of obstructions. Abscess is nature's method of clearing up such obstructions. The obstructions exist because there is no capable lymphatic system to remove them. Lymphatic abscess is a symptom of struma.

Tubercle is first met with where lymphoma or lymphangitis has altered the correlative relations of the lymphatic system, and its meaning is that obstruction exists. Tubercle is, therefore, dependent on lymphatic stasis, for without such we never get tubercle. Tubercle is a symptom of tuberculosis.

It will now, I trust, become evident why scrofulosis and tuberculosis are identical. They are both symptoms of the same lymphatic condition.

Reference to the anatomy of the lymphatic system, as this is of relation to the lungs, shows the former to be delicate in character and much exposed. Beginning with the terminal radicals, the lymphatics accompany the blood vessels until terminating in the bronchial glands at the root of the lung; the efferent vessels from the latter traverse the tracheal and esophageal glands before emptying themselves into the general circulation. The bronchial glands are in a state of change from

youth to old age, consequently are in a state of susceptibility. Calcareous degeneration is not uncommon in them. Obstruction in a bronchial lymphatic implies obstruction in lung metamorphoses. Here, then, we arrive at the point of scrofulosis productive of tubercle; whether the production shall be caseous or miliary may be assumed to depend on the catalytic influences as excited on epithelial or on alveolar structures, or possibly on the state of the system at large.

(To be Continued.)

HYPNOTISM.

TRANSLATED BY ADOLPH MEYER, M.D.
M. D., CHICAGO, ILL.

Hypnotism is a little out of fashion at present. It has lost the fascination of a new thing. All the better for it and for us. Periods of enthusiasm are, generally, the spreading of a new information; the good which is in the facts has, as a rule, had a slow growth; it is suddenly wrapped up in sensational style, and frequently lost in it. The enthusiasm is followed by relaxation and frequently disappointment of the tumultuous elements, and the same quiet observers that originally gave the subject a sound foundation are again allowed to work quietly until a new wave of enthusiasm comes.

Medicine has seen too many of these waves, so many, that it suffered much in the eyes of the non-medical world. This danger is probably nowhere more imminent than in the use of a method that has been the privilege of charlatans for a very long period.

The movement roused over the work of Braid, in England, had subsided when Charcot and his friends began to make their observations on hysterical patients. For some time the medical literature understood by hypnotism the observations made on hysterical individuals. The data of Charcot were based on experiments on a very limited number of pure cases of hysteria, with the characteristic stigmata; as such, they are highly appreciated and important observations. The danger for the posi-

tion of Charcot lies in the fact that he was inclined to look at hysteria as the basis for his findings—which was quite correct—and at hypnotism, as shown by charlatans, as a process identical with his own observations—experiments on hysterical, or at least neurotic individuals—a generalization without foundation.

Before and about the same time as Charcot, a physician at Nancy had been practicing hypnotic suggestions extensively among his patients. A little book of his, on the influence of the mind over physical conditions, published 1866, had been completely forgotten. Bernheim, Professor of Medicine at the Nancy University, took up the matter and explained the phenomena as the product of suggestions, and thus opened the field for a long series of fruitful observations, taking hypnotism out of the curiosity shop and attempting to utilize it rationally for therapeutic purposes. Bernheim's work on suggestion, translated by the well-known New York neurologist, Dr. Herter, brought more satisfactory explanation of all the queer stories told of hypnotism than could be derived from the purely clinical observations made by Charcot on a few especially trained hysterical women, or the discreditable shows of Dr. Luys.

Those among you who knew Charcot will say with me that his attitude towards Nancy was not surprising. His feeling against it, however, has been exaggerated by both his pupils and friends, and by his adversaries. He was careful enough to differentiate between grand hypnotism, that form which he had observed in hysteria, and between the "petit hypnotism de Nancy." Nobody will doubt the truth of his statement that his hypnotism is not quite identical with the hypnotism by suggestion to normal individuals; he is dealing largely with cases of autosuggestion on hysterical basis. Bernheim and his followers avoid this autosuggestion, and substitute it by systematically chosen suggestions of the hypnotiseur.

It need not surprise, either, that Charcot was somewhat irritated over the fact that he had attributed so

much unwarranted importance to the magnet for the transfer of anesthetic and motor symptoms, to the technicality of hypnotizing, the passes, etc., which now were put on a readily explained, no longer mysterious basis.

The school of Nancy is partly to be blamed for the unsatisfactory dispute that followed. It was justified in saying that the methods used by Braid, Charcot and Luys were not rational and misleading, that the result could only be satisfactorily explained by mental suggestion.

But it went too far in submitting the idea that the suggestion could produce in every healthy individual the same symptoms that Charcot described in his hysterical women. This is, of course, an exaggeration, made too prominent by the enemies of Nancy, but due to a lack of explicit statements. I do not feel convinced of the fact that all the symptoms of Charcot's grand hypnotism have ever been produced by suggestion in individuals that were free from all suspicion of hysteria. To claim this is carrying the dispute into a field where authority and reputation will always triumph over plain reasoning; and this is what happened; the world-wide reputation of Charcot and the enthusiastic, and, I might almost say, blind admiration of his pupils to their unique teacher, procured the Salpetriere the appearance of a victory. All this, merely because the School of Nancy had been too affirmative.

In the meanwhile, the practical working was not neglected over the theoretical disputes by the Nancy School; Bernheim, Forel, Wetterstrand, Ringier, Schrenck-Notzing, Hitzig, v. Krafft-Ebing, and many others, tested the use of suggestions as a rational therapeutic agent, and arrived at fairly uniform results.

The results may be summed up as follows:

Suggestion is a very important factor in the treatment of disease with evident or disguised mental factors. Suggestion accounts for the success of many methods in the hands of certain physicians who believe in their methods, when the

eternally hesitating skeptic is bound to fail.

In many cases, it is desirable to produce first a condition of increased suggestibility, such as given by the hypnosis or petit hypnotism.

Petit hypnotism can be obtained in nearly all children, and a varying percentage of adults, varying according to the ability of the hypnotiseur, to the condition of the surroundings and the mental attitude of the patient.

In a statistics of 8705 cases, of various physicians, and of different nations, 519, or 6 per cent., were refractory; 2557, or 29 per cent., showed somnolence; 4316, or 49 per cent., showed hypotaxis; 1313, or 15 per cent., somnambulism.

The curative effect is greater in deep hypnotism, but deep hypnotism is not a condition, but merely a help for the suggestion.

Chronic mental disorders, as delusions of paranoia, the excessive auto-suggestibility of hysteria, mental disorders, with deterioration or suspension of attention and intellect are unfavorable to treatment by suggestion.

All disorders in which the mental attitude is known to be an important factor make a favorable field for suggestive treatment, such as:

Neuralgia and fleeting pains, not depending on a deep organic cause—certain headaches, toothache, sciatic pains—sleeplessness, functional paralysis or contraction, disorders of menstruation, nervous disorders of the digestive tract, chlorosis, alcoholism and other habits, stammering and hysterical affections, etc.

This imperfect list does not mean to be complete, nor does it mean that all these disorders should always be treated by hypnotism. The discretion of the physician is a quality that must be as much exercised with hypnotism as with drugs, if not more.

The results of the treatment depend largely on the qualification of the physician. There are things about persuasiveness and power of fascination that a physician cannot get at school, and frequently never acquires. Lack of success may er-

roneously be attributed, not to the hypnotiseur, but to the principle.

The results obtained vary considerably for this very reason. Hypnotism can work what the public are pleased to call miracles, or it can be a failure. All depends on the commanding power of suggestion, just as so many things do in ordinary life, without hypnotism, if not more so. I have seen Charcot demonstrate a hypnotized hysterical girl with a contracture of the arm, saying to the audience: "You see that the contracture has completely disappeared, because she is hypnotized. I will awake her, and you will see that the contracture returns. Hypnotism has little effect on these cases." Anyone who knows how suggestible a hypnotized hysterical girl is can expect the result of such a remark, even when it was made in a somewhat subdued tone. I have not seen, anywhere, among men trained in the idea of the Nancy School, hypnotism used in such a haphazard and unrational way as at the Salpetriere, and that is one place where the poor results are obtained.

The School of Nancy has been taken to task for reporting cures where a diagnosis was not distinctly made. A paper of Babinski, published in English, in the Journal for Nervous and Mental Diseases, 1892, contains much justified criticism in this respect. There is, indeed, a great danger for accuracy in diagnosis in every symptomatic treatment, and this should be recognized by those using hypnotism. Every physician has had patients coming to get a prescription of a laxative, thinking that their own little story was all the physician should know to feel justified to give such a prescription. The same thing will occur when a patient wants to be hypnotized. In his own mind, he is so certain of what disorder is to be remedied that the physician is not supposed to enter upon a full examination. The physician who is weak enough to yield is to be blamed, but the importance of laxatives remains the same, and so does the importance of hypnotism.

Let us suppose further that a phy-

sician comes to be acquainted with your method in hypnotism, as is done in the Clinique of Nancy. Bernheim is supposed to demonstrate as much of it as possible. But there is no doubt that his selection of cases is less scrupulous because he is obliged to hypnotize for the sake of hypnotizing rather than for the sake of curing. Statistics from his Clinique must, therefore, be taken with precaution.

To judge from my personal experience in Switzerland, and from the experience of Forel, Wetterstrand, Ringier, Loyd, Tucky, Robertson, etc., hypnotism, properly restricted to a limited number of cases, is a great and welcome addition to therapeutics. It depends, however, on so many personal qualities that it is apt to suffer as much through inexperience and assuming friends as through its alleged enemies.

Only a few words about the danger of hypnotism. Whereas I do not know of any bad results having come from the hypnotism by systematic and rational suggestion for therapeutic reasons, I do believe that public shows, with methods that do not exclude autosuggestion, and hypnotism practiced by untrained individuals may do harm. But it is very interesting to notice that even in public shows, there are more people dangerously affected in the audience than through being hypnotized. I know of girls going into hysterics after attending a public show for which their brains were not strong enough, but so far as I know, only of about two instances, when hypnotism, practiced by mountebanks, had its legitimate evil result on the mesmerized. Of bad effects in the hands of well-trained physicians, when used for therapeutic purposes, I know nothing.

When Baird practiced his irrational method in England, insanity was said to increase. It was the time when the increase of insanity was observed in countries that did not stand under hypnotic influences.

Stories are very apt to creep into a subject which was the delight of the spiritualist before Bernheim took away the flavor of the mysterious.

Stories of the dangers are generally theoretical constructions. When the question arose 50 years ago to introduce railroads into Germany, the medical faculty of one of the German universities made a statement that it would be in the interests of the common welfare to shut out such an enterprise; the slow nerves of the people would not stand such rapid movement, etc. To-day, the true story sounds so bad that nobody can afford to name the wise faculty. The same will be the case with hypnotism. Everybody who dislikes sensation will have a natural antipathy against its use; but it is remarkable to see how its bitter enemies are gradually taking interest in what is good in it. Used for therapeutical purposes, it will have its place; for show and for encouraging epidemics among children and in society, it will deserve and obtain due restrictions. None of us would care to see experiments made with alcohol or other drugs, purely to amuse society with the signs of intoxication in the victims.

RULES FOR GUIDANCE IN ELECTRIC ACCIDENTS.

Dr. W. S. Hedley.—1. Break the circuit at once if there be an interrupter close at hand and you know how to use it. If not, lose no time, but proceed to Rule 2. 2. Do not touch the man's body with your bare hands, but if India rubber gloves are not at hand pull him off the cable by his coat tail, or fold your coat or some dry article into two or three thicknesses, and, using this as a pad to take hold of the body, pull it away from the circuit and resort to Rule 5. 3. If unable to get him off, raise with covered hand that part of the body which is touching the earth, or one of the poles of the circuit. This will break the circuit, and it will usually be thus possible to get him easily away, and, if so, proceed to Rule 5. 4. If still unsuccessful, make another pad, and, placing it between the ground and that part of the body in contact with the ground, continue your efforts to detach him. 5. Having pulled him away from the

cable, free his neck from clothing, and treat the case as one of drowning, one method being as follows: 6. Open his mouth, and, taking hold of the front part of the tongue with your fingers (covered with a handkerchief if you have one), draw the tongue forwards, and gradually let it go back 16 times a minute. Be sure that the root of the tongue is acted upon and drawn forward. If the teeth are clenched and you cannot get them apart with your fingers, gently tinuous red line parellel with it. separate them with the handle of a pocket knife or by a small piece of wood, cork, etc. 7. Resist the efforts of the bystanders to pour stimulants down his throat.—The Lancet.

THE REMOVAL OF LARGE LYMPHOMATOUS TUMORS.

An operation was conducted at the Medico-Chirurgical Hospital, on Saturday, December 9, by Professor J. E. Garretson which was of such a character as to require its division into three parts with an interval of a week between. The result was very satisfactory.

The patient was a professional gentleman from the Western part of the State, and the lesion consisted in an aggregation of lymphomatous tumors which formed a mass that extended from the chin along the base of the lower jaw, outward to the ears of both sides, and downward to sternum and clavicles.

The dissection required for removal of the growth compelled taking away both submaxillary glands and demanded to be carried around and under the cartoid arteries, jugular veins and pneumogastric nerves of either side. Both the larynx and trachea were bared. The mass was more or less conglomerated, and had formed attachments where this seemed possible.

It is not easy to imagine a more formidable operation or one that affords more marked illustration of the possibilities of modern surgery.

At the date of this issue, more than three weeks after the last operation, the patient is up and daily walking about the hospital.

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PHILADELPHIA, JANUARY 5, 1895.

MICRO-ORGANISMS IN DISEASE.

The article beginning in this week's issue, and which will continue for several succeeding issues until completed, entitled, 'A Practical Theory and Treatment of Pulmonary Tuberculosis,' brings us to the consideration of micro-organisms in disease.

Bacteria, as causative agents of maladies, have been the subject of much investigation during the past decade. The efforts of bacteriologists to show that in these micro-organisms alone reside the power for developing specific forms of disease have apparently resulted both pro and con. Taking as a status the results showing that certain germs develop an inflammatory disease, such as diphtheria, what shall we say of the results which have been obtained from experiments, equally honest, disproving the statement?

Is the evidence for to be preferred to the evidence con, or, are both to have due consideration?

We must acknowledge that germs,

such as are found in disease, are resident in many media outside the human body, and that they are received into the latter without apparent harm to the individual.

We also know that these same germs are found in the blood, generally or locally, in various forms of disease; but is this any reason that we should forsake all primary conditions, such as exposure to atmospheric changes of temperature or pathological alterations, arising from nervous irritations, in the universal rush after a specific germ the development of which necessarily depends on the formation of a favorable medium in the blood, or tissues, by pathological changes?

That bacteria exert influence by their presence as foreign bodies in the blood must be evident. They must hold the same relative position with the living cells that other waste material does; but, that they are primary causative factors in disease is not evident, inasmuch as their retention by the human system implies lack of ability in excretory function, and the latter, in turn, must be due to congenital or acquired pathological change.

The human body is a chemical organism, and its vitalizing fluid is more or less affected by chemical irregularities. Perfect chemical relation implies health, or ease (comfort). A chemical irregularity, if it affect the blood, implies the opposite, or negative of ease, i. e., disease. This is readily observed on entering crowded apartments where oxygen is deficient and carbon dioxide is in excess. Is it not rational, then, to assume that the cause of epidemic disease is quite as likely to be found in the chemical composition of atmospheric gases as resident with micro-organisms?

This would lead to a consideration of what effects, if any, different planets might have on the atmospheric conditions of the earth—a study in climatology.

Altered chemical relation will undoubtedly bring altered chemical composition, and this, in turn, affects such structures of the human organism as are most susceptible to

the changed condition; for, why should the micro-organism called pneumococcus, circulating in the entire blood current, cause inflammatory changes in only a single lobe of the lung?

If we are to consider, in this connection, the contagiousness of certain diseases, as being dependent on specific micro-organisms, may we inquire why it is that such diseases as scarlet fever, whooping-cough, measles, etc., which usually occur only once during a lifetime, and afterwards render the individual immune from such disease, has no germ that has absolutely been demonstrable as specific? Is it not as plausible to suppose that this class of diseases may be contagious by the inhalation of gaseous elements, which produce changes in the chemical composition of the blood peculiar to themselves? We know that their symptomatic phenomena are resident, for the most part, in the skin and mucous membranes, excretory organs (as physiological meaning is given the word excrement); and, whatever the cause, the inflammatory change does not take place until the final excretory channels have been reached.

Again, can it be more than an altered chemical relation that may not even be appreciable in an analysis, which renders the blood exempt from the influence or contagiousness of these diseases after they have once acted in the individual?

As illustrative of this point, we know that certain chemical reaction takes place where one element is added to another; adding more of the reagent does not affect the reaction, which, in making the new chemical compound, divided itself into two expressions, one of which may be considered as waste.

What, then, can we expect from so called anti-toxines? The results of diphtheria antitoxine, manufactured, as it is, from the serum of the horse, has so far shown some beneficial influence on diphtheria. Now we know that the horse is not especially prone to suffer from diphtheritic (fibrinous) inflammations; that is to say, the animal may be considered as being immune from diphtheria. Diphtheria

is one of those diseases which may occur at any time during the life of a human being, irrespective of its prior existence in the same individual, and, for this reason, cannot be classed in the category with such diseases as scarlet fever. Diphtheria bacilli are found where there are favorable media for their growth. Horse serum rarely presents such a medium, but even when injected into the human system apparently exerts counter-acting influence over the fibrinous form of inflammation rather than over the bacterium itself; hence, we should ascertain what the action of the antitoxine is on fibrin formation, than to suppose it is an antidote to a toxine of the diphtheria bacillus.

Let us turn once again to study the underlying causes of disease as represented by chemical action; influenced by air, food and environments, recognizing the true value of all agents which may combine for the production and continuance of disease.

THE TIMES AND REGISTER FOR 1895.

Beginning with this issue of The Times and Register, we are pleased to present to our readers a much-improved weekly medical journal, on the same principles which have governed us the year past; i. e., scientific material, beneficial and interesting reading, combined with the latest news which pertains to medical affairs, and all at a popular price.

The success with which we have met in the past year has warranted our enlarging this journal four pages, and giving our readers a clearer type, all of which adds to our expense.

We have added to this volume the subject of philosophy, under the charge of Dr. Henry Burchard, of Philadelphia, a most excellent writer and deep thinker.

We have promised us many original articles of scientific value, which will be worth to our subscribers much more than the whole year's subscription price.

What we would ask of our subscribers, who feel interested to help us during the year, is their hearty co-

operation in contributing to our various scientific departments from time to time such material as may be of practical benefit to the general practitioner.

It may not be generally known, that if a subscriber takes interest enough in the journal he receives to look through the advertising columns occasionally, and, if in need of anything, to write the advertiser, mentioning the journal through whose instrumentality he may have been placed in communication with the manufacturer, he helps the journal to keep up its undertakings. Advertisers generally keep track of the medium through which a query comes to them; hence, it is in the power of any subscriber to materially aid a journal in this manner, even though he only write for information.

Therefore, The Times and Register wishes its subscribers a Happy and Prosperous New Year, trusting that we may be of mutual benefit to the progress of scientific medicine during 1895.

THE PAY OF PHYSICIANS.

Dr. George Shrady, the talented editor of the "Medical Record," has entered the lists of lay journalists, and among the first productions of his pen in this role we find him gauging the fees of New York and other physicians; but the Doctor betrays his weakness in mathematical calculations when he essays to compute the incomes of practitioners in medicine in New York.

We are told that there are four practitioners in New York who make \$100,000 a year, and something more than twice that number who make \$50,000.

Who are they?

The late great Austin Flint, no better than whom was known in his time in New York, who had a large and high-priced consultation practice, constant revenues from his college connections, as professor, and instructor to private classes; who wielded a ceaseless pen, and derived some percentage from his text books, all of which had a considerable sale, we now learn, through Courts, on the

death of his widow, left the small fortune of \$60,000.

We should like to know of many New York medical millionaires, but who ever heard of one?

It is true that the late Dr. Willard Parker left something like \$500,000, but it was well known that he was a bold speculator in anything that paid; besides, it was said that he got the first financial start by his wife, who was reputed to be wealthy by inheritance.

News comes to us lately that one of New York's best-known surgeons has been quietly pressing forward for the position of Port Physician to succeed ex-Boss Croker's brother-in-law, Dr. Jenkins, a place which pays the munificent salary of \$10,000 per year, and requires of the practitioner who takes it, the giving up of his practice, if he had any, and restricts himself solely to its duties.

We are informed from reliable sources that the illustrious Senn booked \$98,000 last year, though how much cash was realized in this is not stated.

No, it requires thousand, and five thousand-dollar cases to roll up such sums, and these, in New York, are becoming less to any one practitioner each year, as there is less material coming in from neighboring States than formerly, and for the further reason that the number of consultants and specialists has vastly enlarged.

Probably \$25,000 a year for the *creme de la creme* would be nearer the mark, and these, without doubt, can be conveniently counted on the fingers of the hand.

We are glad to hear of the appointment of Dr. W. B. Rogers, of Memphis, as dean of the faculty of the Memphis Hospital Medical College, vice Professor F. L. Sim, deceased.

The modern novel gets a good word from The London Spectator as a sedative for the brain worker, the man who cannot rest while doing nothing and whom the novel interests without exciting or fatiguing.—Northwestern Lancet.

Philosophy.

DR. HENRY BURCHARD, Philadelphia.
COLLABORATOR.

AN ASPECT OF SPECIAL PROVIDENCE.

I let a house and garden to an impoverished preacher with view to helping him along by boarding out the rent. It happened that I had bought the garden of a millionaire bank president, who himself, using wheelbarrow and spade, had produced such richness that slightest tillage of the ground met with response not unjustly to be likened to the famous draught of fishes where a net was put down at the right time and place. Before the tenant came I had ploughed and planted the garden, and it was turned over to him with the single requirement existing of keeping down weeds. That season my garden was a dead failure. Crisp radishes, always before so plentiful, were not found on the morning plates. There were no refreshing salads for dinner. Berries were wanting as absolutely as if the vines had taken up root and decamped. Even the tomato, that most persistent and overwhelming of vegetables, showed but an infrequent specimen. In short, there was nothing—nothing but weeds. My tenant would not hoe, but he made up for the short-coming for invocations and supplications to Providence, with which he favored the sitters about the table. Words were his antithesis to weeds.

One day, utterly weary of the man's shiftlessness, I asked if the intention of the prayers was to wheedle the God into going to the barn for the hoe, as with lack of use of that instrument lay our default as to the things prayed for. The reply was a look absolutely vacant as to understanding. Not discouraged I went on to say that as the garden had given overflowingly to the bank president, who, so far as I knew, never prayed, and the same to me, whose prayers were prayers in the sense alone of thank-offerings for the abun-

dant blessings found at command of a hoe, a conclusion forced itself that the God was against him.

The preacher awakened to the situation. "Against me, his servant?" he asked, with the largest of interrogation marks.

"Against something, certainly." I replied, "since whereas formerly there were plenty of vegetables there are now none."

The word was taken up by a farmer who happened to be a diner at the table that day. "You don't have," he said, "if you don't hoe; the something is with the hoe, I guess."

"Do you mean," asked the preacher, "to imply that asking God for blessings is unprofitable?"

"Not exactly that," responded the farmer, "but my own prayers I keep for night, not wasting time on getting out of bed in the morning, having found out long ago that half an hour with a hoe while the dew is on the ground is quite equal to a couple of hours after the sun is up."

"And you trust in the arm of flesh?" asked the preacher.

"In that and the hoe," said the farmer, "for I find that if I don't get up and go at it no weeding gets done. I find, too, something else," he said, "and here my prayers come in. A radish seed and a trifle of ground properly put together bring a radish. The thing is the same as to everything about my farm. Nothing lacks or lags. The matter seems to be for each thing to do its part; the seed to do its part, the ground to do its part, rain to do its part, sun to do its part, me to do my part. Seeing this as I am about the fields all day, I am so overwhelmed by the expressions of goodness and presence of Providence that by the time night comes I have got beyond words. What! expect seed and ground and rain and sun to do their part and I loaf. No, no! I don't come to that."

"What do you mean by loafing," asked the preacher, with an expression that implied dissatisfaction with the drift of the talk.

"To speak plainly and not mince the thing," said the farmer, "I mean praying over short-comings."

The preacher was indignant, and expressed the indignation by rolling his eyes upward. What he said was, "He letteth the tares grow up with the wheat."

"He does, indeed," said the farmer, "but for myself I don't save up for him the trouble of separating the two at harvest time."

"Be careful that you are not saving up damnation for the harvest time."

"What! replied the farmer, his face flushed with disgust or anger, as the case may be, "damnation for understanding and obeying God as to his laws? damnation for not whining like a boy instead of working like a man? damnation for not begging when plenty needs alone the reaching out of a hand? All right, let me be d——."—Nineteenth Century Sense.

DREAMS.

Dreams are of two kinds. Yet are the kinds related. Illustration of such difference and relation lies with the twitching of the limbs of a sleepy person contrasted with similar movements under direction of will. Both these kinds of movements lie with muscular action resultant of nerve impressions. The first is of strict association with automatic action, which action is independent of direction or egoism, hence is meaningless; legs are thought of, not ego. The latter directs attention to ego, not to limbs.

An ordinary dream has its crudities explainable in imperfect instrumentation. A brain half asleep is likable to a piano out of tune. With neither instrument is capability to make proper immediate response. The thoughts of a page being read are thoughts by an ego. As a pen splutters with its user or works easily, thus influencing the appearances of a writing, so expression given thoughts rest with the bad or good working condition of a brain. If attempts be made to write thoughts when a brain is half asleep, result is akin with attempt to play music when piano is out of tune.

Because few people are egotistic to

an extent of independence of ordinary means of instrumentation, the brain is always attempted to be used by ego in its excursionizings during sleep conditions, the sleep affecting the brain but not the ego; hence confusion—things being heard strangely and confusedly by the ears, seen strangely and confusedly by the eyes, touched, tasted and smelled strangely and confusedly by the other half-asleep organs of sense. An ordinary or confused dream never occurs where perfect sleep exists. A brain put sound asleep dismisses instantly the hallucinations of a mania-a-potuit; this for the reason that egotistic activity as here existing is at once rid of perversions lying with instrument. Sound sleep on the part of an ordinary man means stillness of ego by reason of absence of organs, illustration lies with a broken-legged man who ceases to walk out of fault of his limbs.

Ego is assumed as never sleeping. Immortality is one with eternal consciousness. Consciousness, however, may be lacking as to means of expression; hence a tongue asleep ego is temporarily without means for talking, a nose asleep ego is without means of smelling; so alike as to seeing, hearing, touching and tasting. But it is not ego that is asleep.

Now, concerning the dreams of sensitives, the poets, the musicians, the communers with spirits, the architects.

Can a dream be independent? Putting this query in other language, Can ego act disassociated from its brain? If reference be here had to ordinary brain as familiar to the anatomist, the answer of Rosicrucianism is, yes. Surely ego loses its ordinary brain at the moment of so-called death! Not to reply with Rosicrucianism is to relegate man to oblivion. An acorn finds itself one with the massive trunk, the gnarled and wide-spreading limbs, and countless leaves of the oak tree. An acorn drops to the ground minus trunk, limbs, leaves. A dropped acorn is found later on, with hypostates of trunk, limbs, leaves. As in an acorn are the hypostases of its needs, so

with ego are the hypostases of its needs.

Brain is indeed one with paradox. It is more than an arbitrary arrangement that divides the encephalic man in cerebrum, cerebellum, pons varolii and medulla oblongata. No part sleeps but cerebrum. A momentary forgetfulness by the other parts would mean bodily death to a sleeper. Cerebrum is the instrument of ego. The other parts are instruments of organic life; being never wholly, or indeed but little, under direction of ego. Distinction between man as ego and his habitation, or environment, is so plain as to be without confusion to him who understands the distinction between the cerebro-spinal and sympathetic nervous systems.

Dreams that are one with communications made to a sleeping man by a something apart from himself, whatever the something may be, are independent of his cerebrum; for such dreams would not be the plain and perfect things they are if semi-consciousness of the anterior brain existed to confuse them. A dream of the purely inspirational class, that is, a dream which is one with communication made to the ego of a sleeping man by an intelligence apart from his own, is clear as to its character, whatever the character may be; the poet gets his lines, the musician his score, the architect his design, the philosopher his aphorism.

Soul, like to ego, never sleeps, and is most alive to relationship with its divine source when eyes are closed in slumber and ears are shut against external sounds. After such manner of communication is much of what has been given and is being given by the God. The Christian Bible, where not the simple story of history, is recital of dreams.—Nineteenth Century Sense.

THE GARRETSONIAN SOCIETY.

Prof. Garretson will deliver a lecture on Tuesday evening, January 8th, in the amphitheatre of the Medico-Chirurgical College, on the subject of "Spiritualism."

Surgery.

DR. T. H. MANLEY, New York.

COLLABORATOR.

BOINET ON THE TRANSMISSIBILITY OF CANCER FROM MAN TO THE LOWER ANIMAL.

This author, at the Roman International Congress and at the Society of Biology, at Paris, lately has communicated the results of 60 inoculations of cancer from man to animals. The peritoneum of rats, goats and guinea-pigs was inoculated with fragments of cancerous tissue from the mesentary, epithelioma of the lip and anus; schirrus, encephaloid from the kidney, cancer of the stomach and liver, and secondary growths of lympho-sarcoma from the testicle.

Microscopical lesions resulting were of a somewhat complex character. In one case, a rat, which had been infected, a mass of lymphoid tissue as large as a small nut had formed in the mesentary, attended with a free effusion. In the other animals there were various types of inflammatory changes observable. Some showed evidences of purulent pulmonary and hepatic impacts. In all cases there were patches of hyperplasia close to the point of puncture; and invariably the deep lymphatic plexus in the neighborhood of invasion was thickened with the ganglia tumefied, or undergoing central purulent, curious changes.

Histological examination revealed little more than cell production, with the formation of granular, amorphous masses, as we would expect to find in animals inoculated with infected material.

The cutaneous nodules presented peculiar pathologico-anatomical features; the papillae were thin and flattened, with an under stratum of cell formation nearly homogeneous included within the reticulum of which were ectodermic granula.

The cellules in the nodules presented in a high degree an epithelial character. Those were the giant-cells

of the protoplasea, granular and yellow. They formed in numerous zones, traversed by a chain of delicate lymphatic vessels, separated from each other by connective tissue loops.

Now, what was the origin of these cellules? Were they truly malignants, or were they nothing more than inflammatory hyperplasia? On close examination it was found that these bodies had a perfectly typical arrangement and that the element of heterogeniety was absent.

We must therefore conclude that cancer is one of the diseases which cannot be transmitted from man to animals.—*Le Mercredi-Medical*, November 28, 1894.

Notes by Translator.

Boinet's important contribution, though of much interest, yet does nothing more than confirm what has long been well known, viz., that this mysterious scourge which we designate cancer is not a disease which is in any sense contagious from man to animal, or from one of the same genus to another.

With our present definite knowledge on this subject of cancer, though it be of a negative kind, it is about time that the vamping of theorists on the question of "local infection" (?) finally ceased.—T. H. M.

OPERATIVE TREATMENT FOR OLD, UNUNITED FRACTURES OF THE FEMUR.

By M. Lejars.

The consecutive importance, succeeding non-union of the shaft of the femur after fracture is dependent on: First, imperfect opposition of each of the bones; and second, on the formation of a voluminous hyperostoses which extend around the entire shaft.

This condition existed in the case under consideration.

The patient was a man 47 years old, who entered hospital February last for a deformity of the left hip. This resulted from a fracture more than a year old; there were five centimetres of shortening, with an enormous hump. A projection, pos-

terior-internally to the great trochanter.

On February 25 an operation was performed for the relief of the ununited and now impotent limb. A long curvilinear incision was made posteriorly over the great trochanter. This exposed a large osseous mass, which extended nearly as far upward as the ischial tuberosity and outward to the cotyloid cavity.

This was completely detached with the mallet and chisel. After this having been done it was easy to bring the ends of the fracture through the incision, remove all vegetation, refreshen the ends of the bone and carefully readjust them. Then the wound was closed with suture except at one end, for a wick of iodoform gauze. Union was rapid, and now, seven months since operation, he walks without difficulty, has no limp, uses no cane, and follows his usual occupation for a living.

In conclusion this author recommends that in all cases of fracture of the femur, in which impotence of the limb succeeds, in consequence of non-union or vicious union, the thing to do is to expose to seat of fracture and perform such an osteoplastic operation as will promise the best functional results warns us, however, that we must not lightly undertake this operation, and that age, general condition and surroundings all have an important bearing on the ultimate results.—*Le Medico-Medical*, November 14, 1894.

OPERATIONS ON THE MASTOID PROCESS.

In a late issue of the "Northwestern Lancet," Dr. Thomas McDavitt, of St. Paul, Minn., contributes a timely essay on the above subject.

The progress made of late years in the surgical treatment of tubercular diseases of the ear and mastoid has, indeed, been marvelous. This is made all the more clear and convincing when one glances over the pathology of cranial suppuration by the older authors.

Even that eminent observer, Sir Benjamin Brodie, admitted that the causation of hard pus formations

was quite inexplicable to him, and we find in his writings on surgical pathology, when describing a case of intra-cranial abscess, he was entirely at a loss to trace its origin.

Those "running ears" of childhood—how commonly they lay the groundwork of chronic deafness and neuralgia—now are readily and radically remedied by simply tapping the mastoid cells, turning out the foul, inspissated pus and curetting away the residue of necrosed or caries or detritus of bone?

After moderate subsequent antiseptic irrigation, with a few dressings the foul-smelling discharge ceases, all pain vanishes and the chronic sore is healed for all time.

In operating, it is well to remember that the anatomic relations of the jugular fossa are not the same in the child as in adult life.

The French and German surgeons prefer the sharp, beveled osteotome for opening into the mastoid cells; but in the adult, particularly when the inter layers of the apophysis are much thickened and eburnated, a small, strong trephine is the safer and more expeditious for purposes of penetration.

Medicine.

DR. E. W. BING, Chester, Pa.
COLLABORATOR.

VARIOUS FORMS OF SORE-THROAT WITH MEMBRANOUS EXUDATION.

Bacteriology has shown that a large number of cases of sore throat considered as diphtheria are so in appearance only, and now that serum therapy is considered a cure for diphtheria it is more than ever important that the distinction be made early. Chaillon and Martin analyzed 99 cases of sore throat as follows:

Non-diphtheritic cases, 29.

Pure diphtheria, 44.

Diphtheritic sore throat (mixed), 26.

The non-diphtheritic cases did not present the same microbe. In 11 cases was found a coccus, the cultures of which could be easily con-

founded with diphtheritic colonies. The false membranes, although somewhat whiter and more creamy, resembled those of cases of mild diphtheria. They were accompanied also with alenopathy. An important point also was the presence of albumenuria met with in five cases.

In the non-diphtheritic cases the pneumo-coccus was found. The white or yellow staphylococcus four times in a relatively mild case; a microbe resembling the coli bacillus twice, and streptococcus 11 times. All cases showing the streptococcus were severe, recalling for the first few days the signs of a serious diphtheria, but they improved rapidly, and were well in eight or 10 days.

In resume, these 29 cases of apparently diphtheria, in which bacteriology alone could determine the nature, contained five different microbes. All were cured. In six cases there were laryngeal complications, several times coryza and albumenuria.

Inversely a considerable number of cases of sore throat had been, without the bacteriologic examination considered as non-diphtheritic.

There are in fact sore throats due to Loeffler's bacillus which are mild, and others which are grave.

It is here that the presence of albumen, rise of temperature and frequency of pulse, serve as distinguishing signs.

A third group of sore throats is the "mixed" variety, "diphtheritic by association." The most frequently associated germ is the streptococcus, and this is a very grave combination, as in 14 cases 13 died; all presented symptoms of malignant diphtheria. In five other cases the staphylococcus was associated. There were all fatal. In seven other cases a small coccus was associated. These resembled mild diphtheria, and all were cured.

The study of croup furnished the authors with results no less interesting than those of the augmas. They divided the cases into diphtheritic and non-diphtheritic croup.

It is important to know that the case is not of diphtheritic nature. These cases are relatively few: if well

treated they generally get well, but if put into diphtheria wards after tracheotomy, they are exposed to Loeffler's bacillus, and if not diphtheritic at first usually become so. The same associations prevail as in sore throat.

Bacteriological diagnosis is therefore necessary in croup as in diphtheria.—*Revue Medicale*.

THE ACTION OF CHLOROFORM ON THE HEART.

Dr. A. Guerin (Paris).—Death from interference with the action of the heart may be avoided in chloroformization, the only requirement being that the anesthetic agent must be inhaled exclusively through the mouth. When death occurs from stoppage of the heart the cardiac muscular fibres cease to contract under the influence of a reflex action exerted by the nasal nerves on the pneumogstrie, stimulating the inhibitory power of the latter on the heart. If a rabbit is subjected to tracheotomy and then made to inhale chloroform directly through the trachea, the drug has no effect whatever on the heart. On the contrary, when the chloroform is held before the nose of the rabbit the heart immediately stops. The trachea being cut transversely, it is obvious that the chloroform inhaled by the nostrils cannot reach the heart through the bronchi. It is, therefore, proved conclusively that the anesthetic agent exerts its injurious action on the movements of the heart through the intervention of the nasal nerves and the cardiac branches of the pneumogastric, the former reacting reflexly on the latter.

In the administration of chloroform it is, therefore, of the utmost importance to prevent the action of its emanations on the nasal cavities. With this object in view, the precaution should be taken of pinching the nose of the patient between the fingers of the hand, which holds the cloth, until general anesthesia is produced, when there can be no longer any reflex action of the nasal mucuous membrane, anesthetized like the rest of the body.

INFLUENCE OF MASSAGE ON THE NUTRITION IN HEALTHY INDIVIDUALS.—BENDIX.

General massage always increases the amount of urine and the elimination of nitrogen. It is more considerable at the beginning of the treatment than later on. If omitted for some days treatment has to be continued for two or three days before any effect is seen.

In children after a week's massage the fatty matter of the feces diminishes by one-third. Intestinal absorption is increased, and the nitrogenous matters of the feces increase by 18 per cent.

Bendix thinks the treatment would be serviceable in chronic liver and kidney affections by promoting the absorption of fluids in dropsical conditions.—*Rev. de Therap. Med. Chir.*

TREATMENT OF PYROSIS.

Substitute beer for wine. Prescribe starchy food—milk—infusions of the simple bitters, mineral waters are to be given and before one of the daily meals the patient should take magnesia 15 grs., rhubarb and canula each five grains—or, before each meal, a powder compound of bismuth, charcoal and magnesia.

Salicylate of bismuth with charcoal is of great use in flatulency, especially in children.

Ophthalmology.

DR. J. A. TENNEY, Boston, Mass.
COLLABORATOR.

ELECTRICITY IN OCULAR HEMORRHAGE.

For some time electricity has been considered a valuable remedy against epistaxis and other passive hemorrhages. Dr. Frankhauser, of Reading, Pa., in an article in the *American Journal of Ophthalmology*, gives his experience in the treatment of intraocular hemorrhages and vitreous opacities by electricity, and gives it as his opinion that galvanism promises better results in these cases than any other form of treatment.

His method of applying the electricity is to apply the glass eye bath filled with warm water over the affected eye, to which is attached the negative pole of the battery. The positive was applied by a sponge electrode to the cervical region of the spine, or the temporal region. A current of from one to five milliamperes was passed from five to ten minutes at a sitting. The sittings were from two to three a week.

A young machinist had an explosion in his pipe while smoking, probably from carrying a cap for a dynamite cartridge in his pocket with his tobacco. His left eye was cut through the upper lid, about midway between the inner and outer canthus, making an incision posterior to the corneosclerotic junction of three-eighths of an inch in length, which was followed by extensive hemorrhage from the wound into the posterior chamber.

When a strong light was reflected into his eye, he had no light perception. The anterior chamber was free from hemorrhage. He was treated more than four months with potassium iodide, jaborandi, mercury, blisters and tonics, without any result. He then commenced to use galvanism. After four weeks of treatment he could tell light from darkness, and soon after a part of the retinal reflex could be detected with the ophthalmoscope. In two months he could see the light, and in a year his vision was 10-xx.

Another case had retinal hemorrhage, probably from diabetes. After some exertion he found one day that he could not see light with one eye. The vitreous was cloudy, giving a faint reflex with the ophthalmoscope. Under general treatment, the cloudiness was partially remedied in three months. He then had an attack in the other eye, almost as bad as the first. The second eye cleared fairly well, but the hemorrhages recurred in both eyes during the year. As one eye would improve, the other would get worse. After a year's treatment, directed to the diabetes and the general health, galvanism was tried for both eyes once a week. In a short time both eyes cleared to 15-xx. In a few months another hemorrhage oc-

curred in the first eye, shutting out all light. The galvanic current was continued once a week, the patient living at a distance, and so making it inconvenient to see him oftener.

In two months the vision had markedly improved, and has held its own ever since. No hemorrhage has occurred for more than a year. Earlier the slightest exertion would bring on a hemorrhage; now he can do light work on a farm, and his vision appears to be improving.

QUININE AMAUROSIS.

Some time ago Dr. De Schweinitz gave quinine hypodermatically to dogs, in quantities of from one to four grains to the pound, with the result of producing blindness in from three to 14 hours. The effect of the drug was obtained more readily by administering the birmuriate of quinine with the carbamide of urea. The symptoms of vomiting, staggering, and convulsions attended the blindness, with two exceptions; in these there were no symptoms attending the blindness.

The ophthalmoscopic picture was similar in every case to that in the human subject. The pupils in all cases were immovably dilated. In one case there was thrombosis of the central vein. Examination with the microscope showed that toxic doses of quinine could produce thrombosis of the central vein, and that neither neuritis nor atrophy, in the true sense of the word, was present in the animal longest blind (nearly a month), but that there appeared to be a species of edema between the optic nerve and chiasm.

Dr. Schweinitz then undertook additional experiments to settle four points:

1. Whether blindness could be produced in dogs by other salts than those used.
2. Whether the prolongation of quinine amaurosis would produce true atrophy.
3. Whether the production of thrombosis or embolism is to be expected in severe cases.
4. Whether the apparent degeneration of the cells of the cuneus

found in the first experiments was the result of the hardening process, or due to true lesion from the drug.

His subsequent experiments showed that blindness could be produced effectively by other salts of quinine, dissolved with the aid of tartaric acid or dilute hydrochloric acid.

In regard to the second proposition he proved by microscopic examination that prolonged quinine blindness caused a true atrophy of the optic nerve, chiasm and tracts.

In regard to the third proposition it was shown that thrombosis of the central vessels may be expected in severe cases.

He found, however, that the degeneration of the cells of the cuneus was due to the hardening process and not to the drug.

From the study of this subject the following conclusions may be drawn:

1. Quinine in toxic doses may produce blindness.
2. The toxic dose is distinctly indeterminate.
3. The duration of the amaurosis varies largely.
4. The field of vision remains contracted.
5. Central vision usually returns to the normal.
6. There is color blindness at first; the color perception is ultimately within the central field.
7. The ophthalmoscopic picture is that of white atrophy.
8. Experiments on dogs show that there is atrophy of the entire optic tract.
9. The same experiments show that the cells of the cuneus are probably not affected.
10. Treatment is of no avail.—Dr. John Herbert Claiborne, in New York Medical Journal.

CATARACT EXTRACTION AN OFFICE OPERATION.

Dr. J. W. C. Love, of Mexico, in an article in the Ophthalmic Record reports that he has performed cataract operations in the office mostly for more than 12 years. He places the patient in a straight-backed chair facing the light, has the pupil well dilated with atropine, and

the cornea rendered insensitive with cocaine. He inserts a speculum between the lids, and makes an incision more obliquely than the one usually made, claiming that the eye is not so readily injured by the motion of the upper lid, if it comes in the direction of the line of incision. In passing the knife through the eye he dips it into the anterior capsule of the lens, cutting it away as far as practicable, bringing the knife out through the sclerotic in the inferior inner quadrant of the eye. He never performs iridectomy unless there are irritic adhesions, and puts no instrument into the eye except the cataract knife, as a rule. If cortical matter is left behind he washes it out by means of a medicine drop-per and a solution of boric acid.

He does not allow the patient to use one eye after the operation, but puts on a bandage over both eyes so securely that the friends will not attempt to interfere with it. He does not tell us how long he subjects the patient to this bandage. It will occur to the specialist that he takes less care at the beginning and more at the end than that taken by many operators.—J. A. T.

COMPLETE TENOTOMIES FOR HETEROPHORIA.

Dr. Stevens, of New York, read a paper before the section of ophthalmology at the meeting of the British Medical Association held at Bristol last summer, in which he stated that complete tenotomies should never be performed in any form of heterophoria, and that they were rarely admissible even in cases of strabismus.

The writer has on several occasions performed complete tenotomies in high degrees of heterophoria, which were followed by the very happiest results. One man complained that if he arranged the goods upon the shelves of his store for an hour he would be obliged to go home with a headache. It was found that he had 18 degrees of esophoria. Both internal recti were severed, without cutting the capsule of Tenon laterally. He was told that his head symp-

toms ought to be relieved a good deal in a year. He said he was much better in three months. The operation was performed three years ago; and the muscles show a perfect balance at the present time.

A case of exophoria of 27 degrees was cured by severing the externi. The patient was tormented to that extent that reading and study were nearly an impossibility. The operations gave the most complete relief; and since they were performed, three years ago, the writer has had to acknowledge a considerable number of patients from this one's recommendation.

A partial tenotomy, in the writer's experience, will remedy three or four degrees of heterophoria. A complete tenotomy will relieve to the extent of from nine to 15 degrees. It is not very rare to find cases where the heterophoria amounts to 15 or 20 degrees.

Gymnastic exercises by means of prisms will modify reflex symptoms in low degrees of muscle trouble; but in the writer's experience these exercises rarely change the measurements of heterophoria. Perhaps it enough to relieve the symptoms.

It is well known that in many cases of insufficiency of the interni no operations performed upon the externi will do any good. The internal recti have no power to converge the eyes. In such cases the patient must go without help, or some form of advancement of the internal rectus must be performed.

At the present time the writer is very much in favor of performing Savage's operation of shortening the internal rectus in high degrees of exophoria, having performed it a good many times with the very best results. As performed by the writer it is the simplest of all operations and the most effective.—J. A. T.

Correspondence

New York, December 26, 1894.

Mr. Editor—This moment on Wednesday I received the copy of the Times and Register, dated December 22, and am surprised to see

that the error made on page 365 has been confirmed instead of being corrected. I have written twice to you and stated distinctly that "I took strong issue against Dr. Morton and against the theories of D'Arsonval. I was strongly on the side of Professor Houston and Mr. Kenelly, saying that electrocution kills. This does not say that any accidents by electricity necessarily must kill; but it confirms the official reports that electrocution as practiced in New York State prisons does kill.

Dr. Morton was the solitary exponent of believing in D'Arsonval's theory that electrocution may not kill. Yours most truly,

ROBERT NEWMAN.

Miscellany.

THE ASSOCIATION OF ERIE RAILWAY SURGEONS.

Programme of the Annual Meeting, January 10, 1895, 9.30 A. M., at the Tod House, Youngstown, O.

MORNING SESSION.

Reception of guests, etc.

Calling of roll.

Reading of minutes of previous meeting.

Reception of applications for membership.

Reports of committees.

PRESENTATION OF PAPERS.

1. "The use of Alcohol in Traumatic Surgery," by Clayton M. Daniels, M. D., Buffalo, N. Y., ex-President Association of Erie Railway Surgeons.

2. "Immobilization vs. Passive Motion in the Treatment of Injuries to the Joints," by Professor R. Harvey Reed, M. D., Columbus, O.

3. "Potts' Fracture and its Treatment," by Professor C. B. Parker, M. D., Cleveland, O.

4. "Traumatism of the Ear," by R. Sayre Harnden, M. D., ex-President Association of Erie Railway Surgeons, Waverly, N. Y.

AFTERNOON SESSION.

5. President's address.

6. "Delayed Union and Pseudo Ar-

throsis," by William H. Buechner, M. D., Cleveland, O.

7. "Relations of Railway Surgeons to Claim Department," by W. E. Talcott, Special Claim Agent, N. Y., P. & O. R. R., Cleveland, O.

8. "The Treatment of Injuries to Fingers," by Professor Webb J. Kelly, M. D., Galion, O.

9. "After 20 Years' Experience with Ether and Chloroform," by Henry Flood, M. D., Elmira, N. Y.

10. A case of Sphacelus of Leg and Gangrene of Thigh and Inguinal Region, with remarks, by E. Griswold, M. D., Vice President, Sharon, Pa.

11. "Some reasons why we should have, and some of the objections met with in organizing a Hospital System," by Emery H. Leyman, M. D., Huntington, Ind.

12. "Tension," by L. B. Hiner, M. D., Lima, O.

13. "Opportunities of the R. R. Surgeon," by F. D. Bain, M. D., Kenton, O.

14. Subject unannounced. C. S. Parkhill, M. D., Hornellsville, N. Y.

DOCTORS' AND LAWYERS' FEES.

The daily papers, at the present time, are congratulating ex-President Harrison upon receiving a fee of \$25,000 for four hours' work in Court; had a medical man of equal or more ability than Mr. Harrison, charged a many-times millionaire \$5000 for a month's constant attention, the whole press would be charging him with robbery—a man to be avoided when you are sick, etc. Another case in point. Judge Levy, of this city, has just allowed a firm of attorneys a fee of \$80,000 for looking after the routine business of an estate for a few months, and yet this very same Judge refused to allow a fee of \$30,000 which a medical man had presented for many months' attendance on a millionaire and his family. The actual work was probably 100 times more than that performed by the attorney who received \$80,000; while the responsibility was probably 500 times more, yet his Honor, Judge Levy, saw fit to cut the doctor's fee down to \$10,000. And why?—Pacific Medical Journal.

The Times and Register.

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PHILADELPHIA, JANUARY 12, 1895.

WHOLE No. 853.

Original.

A PRACTICAL THEORY AND TREATMENT OF PULMON- ARY TUBERCULOSIS.

BY FRANK S. PARSONS, M. D.,
PHILADELPHIA, PA.

Editor of The Times and Register.

(Continued from last number.)

Pulmonary tuberculosis arising from "taking cold" is primarily a pure local affection. If too wide an area of lymphatics are not involved cure will come with suppuration, as evidenced by the cicatricial repair found in autopsies, before mentioned.

Struma, associated with general lymphatic derangement, is phthisis expending itself in the lung, and is formidable in proportion to the derangement. Struma, it will be remembered, is referred to as scrofula generalized, in distinction from lymphoma, or scrofula localized, both being dependent on more or less lymphatic stasis.

Recalling the pathology of chronic inflammations in general, it will be remembered that there exists a continued stagnation of lymph and blood, as well as coagulation in their vessels, and a condition of hyperplasia is first induced in the walls of these vessels, and then in the immediately surrounding parts. The process being a continued one must be gradual, for by a sudden and complete stagnation we get active or acute inflammation, and not chronic.

What, then, is the cause of lymphatic stasis, leading to a condition which may result in tuberculosis?

We know that an irritation acutely expressed, as in the case of burns, induces active inflammation. We also know that irritation of a mild degree, applied continuously, induces

chronic inflammation, as in the case of gastric catarrh from the alcoholic habit. We have seen how irritation, increasing the flow of blood to a part, tends to produce hypertrophy of that part; yet, that so long as the efferent vessels carry off the additional waste there is no tendency to ulceration or retrograde tissue metamorphoses, other than that induced by the contraction of new tissue formation, and the secondary cutting off the blood supply. But as soon as the correlation between the efferent and afferent vessels becomes interfered with, and the waste products are left in the part, ulcerative and suppurative changes take place. (This is evidenced in malignant tumors also.)

But, the question whether these chronic inflammations are always induced by irritations, and by what such irritations are caused, is still speculative.

Obviously, lymphatic stasis is the result of obstruction to lymphatic circulation. Whether this obstruction exists in a coagulation induced by foreign bodies, or by an interference with the normal tone or healthy condition of the arterial blood supply (probably due to a deficiency in oxygen or an oxidizable element, or an increase in the noxious gases of the blood) and, hence, increasing the amount of waste to be carried off by the lymphatics, thus producing sluggishness in their circulation, is, of course, an open question.

One thing is certain—that is the irritation, if such there be, must be applied continuously to a point where the lymphatic stasis is complete enough to cause, of itself, the remaining pathological tissue changes in the disease. This must occupy a considerable period of time, and it is not apparent how a multitude of bacilli, simply as foreign bodies, can remain in any spot of the rapidly-moving blood current long

enough to irritate and thereby produce such coagulation, or stasis, in an open lymphatic system of vessels. Bacilli, entering the blood current, must encounter difficulty of development except when at rest, or the oxygen is limited below the normal, and any such rest of the blood current would imply stasis somewhere in the lymphatics.

It may be well to pause here to consider the germ theory as relating to the production of tuberculosis.

From all that has been demonstrated on the living human organism, germs appear to belong to two great classes:

First, those that are said to produce acute diseases.

Second, those that are said to produce chronic diseases.

This division, which is here drawn for convenience, is apparently one of intensity of virulence, the former being active and extremely poisonous, but easily destroyed, the latter being less active, but of greater tenacity to life. The former may be illustrated by the Klebs-Loeffler bacillus of diphtheria, and the latter by the Koch bacillus* of tuberculosis.

It has been demonstrated that these germs will reproduce themselves in favorable media outside the body, and, when injected into the blood of susceptible animals, will—what?—produce their specific disease?—no!—reproduce themselves.

If one examine the carcase of a dead dog, or other animal, it will be seen that the body is full of living organisms, which, moreover, are not all of the same kind. It is also of common observation that these or-

ganisms are to be found occasionally on living animals, including the human species, who may be the subjects of suppurative lesions. They are found where decomposition is going on in some form. They feed on dead tissue and not on the living. So it is with bacteria. They are to be found in the waste products of the body. They are not able to subsist on healthy living tissues or cells, as evidenced by their destruction in them. Where suppuration and decay exist there will be found the bacillus. If it is one of the virulent kind found in diphtheria, it may inhabit the waste products of every throat irritated by a "cold," or every open sore or wound it comes in contact with, and may intensify the inflammatory action by its irritative presence. It reproduces nothing but its kind, and it seems probable that the determining factor of its virulence is the rapidity of its reproduction. The healthy throat is so rare, especially in children, that the field is ample for its generative powers. The above is as true of other germs, including the tubercle bacillus. They reproduce themselves in favorable media and atmospheric conditions, and are destroyed by unfavorable conditions.

The experiments conducted on Guinea-pigs and rabbits with cultured tubercle bacilli, to show that Koch's germ induces tuberculosis, do not prove of much value, inasmuch as these animals are very prone to tubercular processes from any sort of irritative interference with their lymphatic circulation, and especially so when such irritation is applied to a serous membrane, as the peritoneum.

It must be rationally argued that the favorable medium for one kind of bacillus may not be identical with that of another; for example: If the waste elements in the blood serum from cheesy degeneration be a cultivation ground for the tubercle bacillus, it does not necessarily imply that the same would prove a favorable field for the cultivation of the Klebs-Loeffler bacillus, and vice versa. Hence, various forms of germs may appear in different diseases, not

*(The products of bacilli, the toxalbumens, toxines, etc., which are said to be the ptomaines of disease, are duly considered in their connection with this subject; but it is difficult for the writer to understand how a poison, if such exist to cause disease can be found prior to the development of the bacillus, which is said to be the father of the poison; the poison certainly does not produce the bacillus; moreover, it is a pretty well established fact that symptoms of tuberculosis, or indications leading thereto, are more or less advanced before the appearance of the tubercle bacillus is demonstrable, or enters into the symptomatology.)

because the germs are specific, except as diagnostic phenomena, but because they develop and multiply in different media. It is not every sore, or diphtheritic throat that gives evidence of a Klebs-Loeffler bacillus, nor every healthy throat that does not contain more or less of them.

Without doubt, we imbibe, daily, germs of many descriptions. We breathe them in the air around us, and swallow them in the food we eat and the water we drink. So long as our excrementitious organs and the lymphatics are in a healthy condition there can be no spot for germs to congregate and multiply in the blood. Most of them are destroyed by oxygen, and none can germinate in the blood current when oxygen is in its normal quantity or in excess. This is evidenced by the results upon consumptives of living in ozonized atmospheres and high altitudes. Oxygen is the best sterilizer of which we know. Germs, alive or dead, will pass out with the waste products of the body if not hindered, by a stasis in some excrementitious organ.

Returning to our consideration of lymphatic stasis, we may assume that a cause for lymphatic obstruction may be found in an incompetent excrementitious organ, which theory is perfectly in accord with the acknowledgment of the lymphatic organ of tuberculosis. Such organ may be the seat of congenital or acquired incompetency.

Congenital incompetency may be due to a faulty intra-uterine nutrition, tending to dwarf the organ and limit its function; or such incompetency may result from some one of the many unknown causes common to other congenital deformities.

Acquired incompetency must depend on faulty nutrition after birth; this, without doubt, is due to a lower degree of oxidation in the cellular elements of the blood. Whether such lowering of oxidizing power be in consequence of a deficiency of oxidizing agents, according to Churchill's theory, or the outcome of loss in the available oxygen to vitalize the tissues, the result is the same; i. e.,

sluggishness of the efferent circulation by overcharging the lymphatics and veins with waste tissue elements, the ultimate backing up of waste products in the capillaries of the affected part, and, finally, stasis resulting in inflammation, which will be acute or chronic as the completeness of the obstruction be accomplished suddenly or gradually.

It is on complete oxidation that the healthy cellular life of the animal depends. Deoxidation means death. Life is opposed to death, and nature is continually striving to preserve the former by ridding herself of the latter. As soon as an animal cell is deoxidized it becomes devitalized and is crowded out of its relations with living cells. If it can pass out through the excrementitious channels, as nature intended it should, no harm will result, even if many bacteria are feasting on the defunct cell. If it cannot pass out, but is held by stasis or obstruction in relation with living cells of the part, we soon have a collection of such dead material causing irritation to the nerve elements* of surrounding tissue, and inflammatory results.

Deoxidation or other alterations in the chemical equilibrium of the normal human organism may be brought about in many ways. It would be interesting, in this connection, to note what the different effects are from atmospheric changes upon the chemistry of the blood. Different localities and seasons must have noxious chemical elements, which are detrimental to certain human organisms whose excrementitious powers are below the normal. There is no reason to suppose that chemical elements act differently than their natures, which are known spe-

*I incline to the opinion that we have, first, a stasis of waste elements; second, a nerve cell paralysis due to the stasis; third, increased blood supply to the part as a result of the paralysis, and which, owing to the existing obstruction, brings about the phenomenon—inflammation. Phagocytosis may be easily explained, inasmuch as a leucocyte, if it does not contain enough oxygen to vitalize it, becomes pus, and, hence, waste; if there is oxygen enough in the cell bacteria may be destroyed; otherwise, as a waste cell it may become the prey of the microbe.

cifically in the laboratory, determine that they must. Why, then, cannot gases in the air act chemically on the gases of the blood to produce disease, and this irrespective of any germ?

(To be continued.)

CLIMATOLOGY IN CIRRHOTIC RHINITIS.

BY C. ROBERTS BINDER, M. D.,
PHILADELPHIA.

Read before the County Medical Society, Dec. 12, 1894.

The pathological changes in atrophic rhinitis present a subject for much controversy—pathologists differing in their a priori investigations. Therefore, a clinical a posteriori reasoning is accomplished under difficulties which induce factionalism as to whether the tissue metamorphosis is the result of a progressive hypertrophy, or has it its own isolated causes classing it as an affection per se? Nevertheless, we have a cirrhotic state to combat. Let it be the result of a hypertrophy, as claimed by some researchers, or the result of a pathogenic coccus or bacillus, as accounted for by others, it still maintains the same course that scleroses do in other organs. That is, a prolific development of tissue cells, in various stages, from round cells to developed cicatrices, causing the caseous degeneration of epithelium, which result is directly due to a progressive contraction. This contraction, while homologous to the scleroses in other organs, owing to the situation is more accessible, and, consequently, more amenable to treatment by atmospheric changes, and directly subject to increased exacerbations when the surroundings are unfavorable. As for myself, I feel complacent over the fact that climate reveals to me measures of pronounced success in the amelioration and possible cure of this odious disease. As for local applications, my experience has been futile, though,

at the same time, I have persevered. Likewise, I do not doubt that this is the experience of all practitioners in the treatment of this stubborn malady; and, hence, it behooves the thoughtful rhinologist to consider some method at his disposal which will enable him to locate the patient upon a vantage ground, where the morbid changes will be inhibited, and the remnants of healthy tissue and glands be stimulated to normal physiological action, overcoming gradually a lesion that ridiculed a therapeutic medicinal treatment.

The paramount evil is apparent in this affection as in all chronic diseases—social ostracism. Truthfully, it is more apparent here than in some others; the offensive smell which is noticeable in the large majority of cases not only renders them unfit for many offices of social man, but it must be constantly a reminder of their infirmity, inducing melancholia and other psychological phenomena. The results of this condition can be depicted by observing physicians; that deplorable state which they have seen among the hopeless—the epileptics, the maimed, the phthisical and the insane. Since colonization has done more as a restorative to the epileptics than have medicinal or operative measures, and the healthy offspring of the tuberculous immigrant in Colorado demonstrates what can be done for the afflicted who fear nature's law of heredity, the scientific climatologist conjectures wisely when he considers "what might be done for the chronic invalid in colonies, established in suitable places, and arranged politically, that they might compete with their fellows for a livelihood." This would not only be a step toward Utopia, but a lesson of philanthropy that could only be accomplished by the highest grade of civilization, urged and abetted by a compassionate humanity. Moreover, when morphology, and this refers more especially to morphological teratology and embryology, is established systematically in medical diagnosis, then will the treatment of many chronic diseases resolve itself into colonization. The reason of this is

patent, for the profession will recognize more explicitly causes of evolution and also those of atavism.

Ozaena, the prevailing symptom, though some times absent—as I have seen it—is by no means diagnostic of the condition. Ozaena may be the result of tuberculous, syphilitic and carious ulcerations, and even a result of accessory disease, although Drake claimed originally that atrophic rhinitis never existed unless accompanied by antral, ethmoidal, or sphenoidal disease. Since, according to my view, the ozaena is due to the caseous degeneration of epithelium, this symptom is dependent entirely upon the intensity of the cirrhosis, and, if I may be allowed to introduce E. Frankel and Krause's theory, the diathesis and environments which favor the propagation of the "bacillus foetidus." Why the bacillus foetidus evinces itself in some cases and not in others, is a question that should be settled by the department of bacteriology. Although the clinician is fully aware that the diathesis, surroundings, and other incidentals dependent upon the vocation of each patient augments the development of this bacillus. Moreover, the site of the lesion is in itself a septic location, which is modified by the anatomic conformation of each individual's nose which is unfortunately attacked. This truth is another clew which the morphologist can employ in the revelation of the mysteries of anomalies and reversions. I have seen the typical nose of the anatomist's chart in clinics, but I have never seen two identical nasal chambers, either in a physiological or pathological state. Therefore, the normal structure, prior to the pathological development, is the foundation upon which the intensity of the lesion depends; hence the peculiarity of each individual case.

The turbinates are the selection by preference for the morbid change in the atrophy of the nasal organs, and the classical seat, in the major portion of the cases under my notice, has been the inferior and septal portion of the middle bone. Recent investigations have disclosed that the inspired air passes through the mid-

dle meatus, and that this is normal respiration. These investigations reveal to the climatologists the danger of vitiated air to an atrophic condition upon the middle bone. Hence the patient must have an ozonized air, air free from sulphurous smoke and noxious vapors of every description. In short, urban air, with its sooty and dusty composition, must be avoided in order not to increase the symptoms. There are three kinds of atmosphere admissible in the treatment; they are suburban, mountainous and sea air. The wisdom of choice depends entirely upon the circumstances, e. g., patients dwelling in large cities near the sea, or in seaport towns, should be sent to the highlands and locations where the relative humidity is less than at sea level. On the other hand, patients dwelling inland (I shall not say on highlands, for mountaineers are particularly free from atrophic rhinitis) should be sent upon sea voyages in order to derive full benefit. The suburban localities I wish only to mention as palliatives for extreme changes, as some patients cannot afford, for pecuniary reasons, to go farther than the adjacent counties of their respective homes. However, I recall one case which improved in the two months' time spent in the Schuylkill Valley, the desiccation of the secretion and odor being cursory when he returned for treatment. The cases which are restrained from the climatic therapy are generally those patients that present the most advanced lesions, but financial reasons prevent them from receiving the full benefit of treatment and advice. These are the cases that colonization would aid.

The ideal course in the climatology of this affection depends entirely upon the case in vogue. First, the general condition of the patient must be considered, e. g., is anaemia present? According to my observation, it is, in a large percentage of cases. I account for this morbid condition in the following manner:

The lesion involves the nasal portion of the respiratory tract, and, in my estimation, any lesion implicating this tract, whether in the

peripheral or central portion, prevents proper aeration of the blood. Hence, the anaemia varies proportionately to the amount of tissue involved in this cirrhotic process. Notwithstanding, the anaemia should be treated with haematinics and bracing atmosphere, in which there is an abundance of oxygen; the mountains of Pennsylvania and New York in summer, and the Atlantic seaboard in early spring fulfill these requisitions. Secondly, the patient's temperament should be considered. I should divide disposition into two states: irritability and repose. The general rule is, usually, infrangible, i. e., light-complexioned mankind belongs to the reposed in temperament, while dark-complexioned are irritable. In the selection of an abode of health for the afflicted, the above must be well borne in mind; as it is of the utmost importance to send the irritably inclined to climates which are of a sedative nature. Contrarily, the reposed should be sent to stimulating resorts, where animation will cause them, in part, to forget their malady.

The primary requisite in promoting the domination of the healthy tissue and fostering a metamorphosis in the disorganized structure in all cases is out-door life; that is, not a definite length of time each day, but, if it is possible, to remain in the atmosphere 24 hours it will the better accomplish the desired result. The sleeping apartments should be roomy, and a free circulation of air should be active during the sleeping hours as well as when the room is unoccupied. Above all avoidances steam radiation should be placed. The dry air should be eschewed at all times, for the reason that the sufferer with cirrhotic rhinitis—unless the pathological surface is of small area, and this I have never seen—cannot infuse the inspired air with sufficient moisture to insure a salutary influence upon his economy. Extreme cold should be shunned, and also localities that are extolled for dryness, per example, Colorado and New Mexico, in the United States, and Egypt abroad. One of the worst evils which characterize

these places is the violent sandstorms within their domain, causing a mechanical irritation to a membrane passing through the various stages of chronic inflammation, and also causing a painful nasopharyngitis. In all cases that have come under my notice in Philadelphia, subjectively and objectively, the disease has been augmented during prolonged dry and cold spells. Contrarily, the summer months, especially the moist, warm days, benefited and relieved the patients, and checked the process of destruction.

The abode and climate of preference, from which superior results will be obtained, is one the composition of which consists of: picturesqueness, warmth, balminess, equability, stimulation or sedativeness (according to the temperament of the patient). Of these conditions I shall speak separately.

Picturesqueness affords solace to the restless and fosters a feeling of joy and careless demeanor in those who are morose. In fact, there is nothing so free of sickly contamination as an ever-varying landscape.

Warmth is the next quality which I wish to extol; and by warmth I mean a temperature of over 70 degrees F., and it may range to 84 degrees F. This is requisite for two reasons; it aids in moistening the inhaled air, and, owing to its mildness, the small space of healthy tissue can perform its function admirably. Cold air, on the other hand, not only cannot impregnate itself with moisture, but it is deleterious to the healthy membrane, and causes its hasty destruction. The second reason for warm air is the opportunity that it affords for out-door exercise, without bundling in swaddling clothes, which impede free circulation and interfere with the glandular system. This system must be kept as near perfect as possible if a cure is to be hoped for in rhinitis cirrhotica. Moreover, accompanying this affection, or rather as one of the sequelae, is a functional disturbance of the aural organ, due to agglutination of the mouths of the Eustachian tubes in the naso-pharynx. The dripping of viscid mucous from the nose

is responsible for this plastering process. Warmth, combined with a moderate relative humidity, is not only a preventive of this troublesome symptom, but a positive relief in cases of some length of duration.

Balminess is a combination of moisture and sunshine tempered with warm currents such as would be blown from the ocean by light breezes, and experienced in resorts along the southern coast of California, eastern shores of Italy, and that delectable country of southeastern France and adjacent Italy washed by the shores of the Mediterranean Sea. It insures the fatuitous victim from the fear of "catching cold," and for this reason allows him to take out-door exercise with a feeling of immunity. The moisture in a balmy atmosphere is due to the degree of relative humidity; the latter is directly dependent upon the influence that the absolute humidity has upon the temperature. Since warmth is a component part of the climate I have recommended, it is well to observe that an extremely damp locality be avoided, for the results which are hoped to be obtained from moisture will not be forthcoming, but instead the patient will suffer from a high degree of relative humidity. In order to avoid excessive humidity, it is well, according to meteorological observations, to eschew extreme temperatures.

The equability of which I have spoken as a factor in the selection of a suitable domicile for atrophic conditions of the nares applies more to the equability of the warmth which I have already described. Coasts or islands washed by warm ocean currents are to be mentioned as possessors of equability. Truly all large bodies of water avert the rapid rise and fall of the temperature wave. It is needless for me to explain this phenomenon, but I should like to make an exception, and that is, the great lakes of America, the confines of which are visited by most severe rises and falls of temperature in a short period of time. The direct cause of this, I think, is the plateau-like situation of these lakes, as this is not true of Salt Lake, which is a

basinic region, though elevated at the same time some 4000 feet.

In the Transactions of the American Climatological Association for the year 1890, Dr. A. C. Standart gives a statistical study of the climate of this region; and, as a winter resort, for equability and bracing tone, a better selection would be difficult to make in cases of rhinitis cirrhotica. It is not cold enough to hinder outdoor exercise. Moreover, this degree of cold would act as a massage to the healthy tissue of a patient whose atrophy was of a low grade; but, for bilateral cases, with small area of healthy tissue in the nares, I prefer the southern oceanic treatment, either upon a suitable island, or a sea voyage.

It is with some regret that I speak of sea voyages, knowing that there is not the desired facility. There are no planned voyages by steamers departing from any of our seaports for southern sea benefits, calling at stations of interest and salubrity, so that the only expedient is a sojourn upon one of the islands in the Atlantic Ocean, such as the Bermudas, Azores, or Maderia Islands, combining equability and sedativeness.

The last qualities that are necessary considerations in the choice of selection are influences which bear upon the coporeal and mental faculties of the individual; they are sedativeness and stimulation. I have previously classed the variety of patients which improve best in climates possessed of one or other of these attributes. Sedativeness will be found in localities or resorts whose air is balmy, mild and bright, and whose elevation must not exceed 400 feet above sea-level. As stated before, the following islands are unwavering examples of this character, the Bermudas, Azores or Madeira. Stimulation is found at high altitudes, ranging from 500 feet to a mile above sea-level. Of the resorts which combine equability and stimulation, I may mention Nice, Mentone, Cannes and Villefranche on the shores of the Mediterranean; but, by preference, according to many climatologists, the islands in this sea are superior—Capri, Malta,

Majorca and Sardinia. In the Atlantic Ocean the Canary Islands are noted for their stimulating attribute, and in the Pacific mention may be made of Western Australia. The southern coast of California has an atmosphere the volume of which is equable and stimulating. The counties of that State bordering on the ocean are Santa Barbara, Ventura, Los Angeles and San Diego. All of these resorts have improved hosteleries, and home comforts can be partaken of very liberally. Therefore, the physician need not hesitate to give his patients contrary advice owing to lack of accommodations.

In conclusion, I wish to state that recently two cases of atrophic rhinitis of which I am familiar developed tuberculosis of the lungs. Therefore, it appears to me that there must be fibroid changes in other organs, following the progress of the disease in the nose; or, while the destruction is active in the nasal organs, it is a suitable and favorable opportunity for the ingress of the tubercle bacillus. If this presumption cannot be refuted, then we have additional reason to treat this affection upon a climatic basis, both to prevent this result and to hasten the subsidence of the nasal lesion.

A FEW POINTS ON THE TREATMENT OF TONSILLITIS.

BY T. J. MCGILLICUDDY, A.M., M.D.

It may not be any longer fashionable to purge briskly in beginning the treatment of a severe acute attack of tonsillitis or quinsy, but it is nevertheless an extremely useful measure. It acts, not only as a revulsive, drawing off the congestion from the part through reflex vasomotor influences, but, I think, its principal advantage is in the removal of fermenting materials, mixed with the catarrhal secretions of the whole digestive tract, and which are, to my mind, the principal causative factors in setting up tonsillitis.

The "catching cold" is simply the exciting cause; the tissues are already in a state pre-disposing to in-

flammation, as they are a part of disordered digestive system, and, by continuity, if not by contiguity, the mucous membrane and its glands are already irritated.

The sulphate or phosphate of soda in hot water answers admirably as a cathartic in this condition, and is much to be preferred to calomel, colocyath, or other irritating or drastic evacuants. A good dose of senna tea is also useful.

As a local application I have lately tried in several cases of tonsillitis which were rather more stubborn than usual a preparation which I had used before in other conditions, i. e., kretol.

Kretol is a coal tar product, with a strong but not unpleasant tar-like odor; it is non-toxic and mixes readily with water. Its alkaline, soapy character makes its cleansing properties very marked, while it is an astringent of very great merit.

In the cases I have above alluded to, tannic acid and glycerine, chlorate of potash, and a solution of nitrate of silver had been used without any very appreciable benefit, the tonsils, in most of these cases, were enlarged to a greater degree than common, and deglutition in all of them was extremely difficult and painful. In each case a 10 per cent. emulsion was used as a gargle with a success which I confess astonished me, although I was certainly prepared to see some benefit accrue from its use.

A very short treatment in each case was sufficient to restore the throat to its normal condition, and I believe that we have in kretol an agent of great value for the treatment of tonsillitis. I would suggest that it is worthy of the notice of surgeons and throat specialists.

A gargle of glycerine and hot water will sometimes be productive of great benefit after we have been disappointed by the indifferent results obtained from the use of alum and other astringents of that class.

In some stubborn cases the inhalation of steam from a 20 per cent. hot emulsion of kretol will be followed by very good results.

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PHILADELPHIA, JANUARY 12, 1895.

ARISTOL AS AN ANTISEPTIC POWDER IN SURGERY.

Since the era of antiseptics dawned upon us, medicaments have been applied over the surface of wounds in various ways quite unknown to our forefathers.

First came Lister's steam engine, the steam spray—medication a vapeur; but this nebulous contrivance was hardly born before it died—atomization went.

Then came the irrigating machines, the complicated hydraulic apparatus, the syphon, the irrigating torrent which deluged everything and soaked, saturated and chilled the integument. But common sense and a large mortality soon swept this worse than useless contrivance aside.

The cursed, condemned and anathematized sponge and hand-basin have fought their way back to their legitimate places.

Next came powders, insufflators, etc. Iodoform, that toxic compound

of iodine and sulphur, which, though employed as an antiseptic, may any time poison our patient, and anyone who knows anything about bacteriology is aware that it possesses no antiseptic powder whatever, though all must admit that in tuberculous or syphilitic sores it exerts a most marvelous stimulating power in the process of repair.

After iodoform comes aristol, a proprietary drug, which is more efficacious than the former and without its dangerous lethal properties. Under all circumstances it is to be preferred to iodoform, when a deodorizer and antiseptic is called for.

Aristol is devoid of any of the offensive odors of iodoform, and, in light applications over wounded surfaces, forms an impervious scab, or shield, under which healing rapidly advances. It certainly is the most valuable dry powder we have in our possession at present for many lesions of the periphery.

Aristol is of immense value in the treatment of burns, having a remarkable influence for the relief of pain. It occupies a high place as a cicatrizing and antiseptic. It may be used in ointment or combined with bovine.

Aristol is of great value in malignant tumors, especially during the stage of ulceration, and may even be used internally for cancer of the stomach.

HEREDITY.

There is a class of people who seem to consider themselves very wise in laughing at what they presume to consider the foolishness of hereditary traits. These people do not get much comfort from Rev. Dr. Talmage, who, in a recent article, says: "Now, the longer I live the more I believe in blood—good blood, bad blood, proud blood, humble blood, honest blood, thieving blood, heroic blood, cowardly blood. The tendency may skip a generation or two, but it is sure to come out, as in a little child you sometimes see a similarity to a great grandfather whose picture hangs on the wall."

Dr. Talmage is right. There is no

question that we inherit the virtues and the sins of our ancestors. To believe to the contrary is not only to deny the teachings of Holy Writ, but to set aside the experience of all ages and peoples. The owner of the race horse says to us, "blood will tell," and the farmers know that it "tells" in their cattle and sheep, not only in physical development, but in disposition, in that character which in brutes nearest approaches to the mental qualities of man. If you cannot raise a trotter from a draft horse, why should you expect to raise a man of intellect from a tramp?

Instead of belittling heredity, we should not only acknowledge it but study it. Hereditary traits, if understood, give an index of character which, in proper hands, can save the born criminal from crime and the fop from ridicule. We believe in it, but we know that it can be made amenable to reason, and that it can be controlled by observation and education.

CHLOROFORM DEATHS.

A most inexplicable trait of certain people and nations is the remarkable tenacity with which they cling to their ancient customs and prejudices.

Sentiment, we will admit, is deep-rooted with the masses and yields only after centuries of a determined opposition.

We are led to these reflections from the present status of chloroform anaesthesia in Great Britain.

There, on those British isles, which have opened the way to greater progress and much more substantial advances than any other nation in the sciences and industries, in spite of a constant and ever-increasing mortality from the lethal section of chloroform, surgeons there still stubbornly persist in its use.

The London Lancet, in noticing "Deaths Under Chloroform," editorially, in a recent issue, cites an instance in which chloroform was given in the Great Northern Hospital with mortal consequences.

The patient went safely through the operation; but "a few moments

afterward she went into a faint and expired."

The writer inquires here, if it may not be probable that in this and similar cases chloroform played but a subsidiary part, and if we may not attribute death to general shock to the system, rather than the effects of the anaesthetics?

This remark leads us on to the consideration of great importance of a question which we will endeavor to consider at another time; but we may say here now that the general impression prevalent that aesthetics obviate the dangers of shock is scarcely correct, and that the comatose state into which we force our patient in no manner reduces possibility of mortal collapse, just at that moment when we are about to congratulate ourselves on the success of operative procedure.

But, we say, why, on what grounds still use chloroform, in any other than exceptional cases, when we have another anaesthetic, repeatedly proven, both by clinical operation and experimental, as the safest?

There seems to be but one possible excuse for the general preference of chloroform to ether in large hospital services among the poor, viz., on the score of expense.

It would be vastly better in the interest of humanity when the pecuniary side of the question becomes an important factor to rather, in minor operations, depend on peripheral cocaineization and reserve ether for capital cases only.

With a full knowledge of the imminent dangers always before us, it certainly would seem that when we adopt chloroform to the exclusion of all other well-known and much safer anaesthetics we take an unnecessary risk and in the event of one case terminating fatally, in the course of operation, we leave ourselves open to a civil action.

There is no use of straining further the scientific aspect of this question, as some have done in endeavoring to prove that death commences with the respiratory or cardiac reflexes early or late in operation, for the truth is in chloroform poisoning death sets in in various ways from

the moment of the first whiff to any time during manipulation, and not infrequently after inhalation has been discontinued.

MILK INFECTION.

Dr. Charles McLean, V. S., in his address before the State Dairymen's Association, said:

"Milk is the most easily contaminated of any article of diet used by the human race. It is the first article of food used, and remains an article of food in some form or other during our entire lives. Milk is one of the best mediums for a great variety of bacteria to live in. Milk becomes sour by the action of bacilli, because they turn sugar into lactic acid. Every minute milk remains exposed to the air it deteriorates, and the bacteria form, and it is next to impossible to prevent them getting into milk, as they lodge even before you can finish milking a cow. The common hay bacillus found in every stable, and as a matter of course in all milk, multiply so fast that in 12 hours their descendants will number as high as 10,000,000, and they will destroy the fat globules and sugar in three or four days unless the milk is sterilized. I want to tell you the only pure milk you can get is sterilized milk—that is, after you are weaned. The heavy mortality of bottle-fed babies is due to bacteria, which makes the food unsuitable, and which they are forced to eject. The medical world has searched for a long time to remedy this evil, and, as a result, the market is filled with various artificial foods, all with claims of superiority, and any of them are preferable to cow's milk, if the milk was ever subjected to the following exposures: If the milk pail was washed in dirty water; if the milker's hands and finger nails were dirty; if the milker or caretaker of the milk had a bad breath; if the strainer and every utensil that milk is placed in was not scalded, and most thoroughly, too, and kept in a place that it is as clean as it is possible for scalding water and willing hands to make it.

Nor can you have good or pure milk if you have dirty stables and dirty cows. The milk should be handled as quickly as possible where there is the least dust and by the cleanest of people, and kept in the cleanest of places."

The truth of the above-quoted address may be demonstrated by laboratory research, so far as the development of bacilli in milk is concerned.

Milk is a compound belonging to animal chemistry, and, when secreted by the glands, is to be considered an excrementitious product, whether it be in or outside the body. As such product it is devoid of life and becomes a favorable medium for the development of germs which are omnipresent in the air about us.

Milk infected by germs may cause irritation of the intestinal mucous membrane, the same as certain other foreign bodies. Disease results not so much because the germ is specific as on account of irritation produced.

Certain germs develop faster in milk than others, and will cause irritation to the intestinal canal in proportion to their numbers and the susceptibility of the mucous membrane to such irritants.

Purity in milking can be assured only by the greatest of care. Fortunately there are dealers in Philadelphia and other large cities who use the utmost precautions against transmitting germs through their supply of milk. Milking is performed by persons who use the greatest care as to cleanliness. Aseptic strainers of fine muslin are placed over the pails, the stream of milk is directed into a small pan placed on the strainer, to prevent the force carrying the germs through. The milk overflows the pan, gently filters through the cloth into the pail, and is at once placed in glass jars and delivered.

We believe that milk so managed will present the least danger as to germ infection, and will not need sterilizing, even in warm weather. The effect of such milk on children and invalids is so vastly superior to that obtained when the milking is done by the ordinary process that,

even though the price be a little higher, the economy is obvious.

As to tuberculous germs, their presence in milk is probably due to the germ infection of the animal. Their capability of infecting the individual who partakes of it lies not with the milk but the person, inasmuch as the excrementitious organs of such person must be impaired else the germs will have no favorable medium in which to lodge.

A CURE FOR APPENDICITIS.

Of late years a dread has gone abroad that every one who eats fruits with small seeds in them is pretty sure to run the risk of dying from appendicitis, or be forced to undergo a dangerous operation. So strong has this dread taken hold of the public mind that thousands refuse to eat small fruits when seeds have to be eaten with them. Grapes are always pitted by them, and blackberries, and even raspberries, with their small, insidious seeds, are taken entirely from the bill of fare.

The fact is that appendicitis occurs very rarely, and the percentage of people who eat fruit with seeds in them that are caught is insignificantly small. When the complaint does seize one it is not necessary to resort to an operation, except in severe cases, nor is it absolutely necessary to die. The most successful cure is to administer internally from one to two ounces of sweet oil every three hours until the pain and fever are relieved.

The seed which causes the trouble irritates the muscular tissue so that congestion follows, and this may soon cause inflammation of a very serious character. Sweet oil, administered in time and faithfully, allays the inflammatory condition, reduces temperature and relaxes the tension of the muscular coating of the intestines and appendix. Besides that it takes seed or all foreign substances with it and effects a complete cure. The patient should be kept in bed and poultices should be applied very hot over the seat of pain.

Surgery.

DR. T. H. MANLEY, New York.

COLLABORATOR.

LAPAROTOMY IN TUBERCULOUS PERITONITIS.

Frees, of the Giessen Gynecological Clinic, mentions the fact that operation statistics of tuberculous peritonitis show a great preponderance of women, whereas pathological registers disclose a predominance of men. The effusive form is usually looked upon as more favorable than the adhesive or obliterating. The author gives short details of 18 cases of tuberculous peritonitis with effusion treated by abdominal section. Nodules were found in all the cases on the visceral and parietal peritoneum. Twice the peritonitis appeared to start from the Fallopian tubes, but these were not removed, as the process was so very generalized; one of these operated on in 1893 is still living. In three others the clinical course, etc., made the same origin probable. In one of these cases the appendages on one side were removed, in another those on both sides, and in a third a right pyosalpinx with caseous contents, as well as an ovarian tumor apparently of the same nature; two of these are still living. As regards the operative procedure, as small as possible an incision is made in the linea alba, a digital exploration carried out, and the fluid evacuated. Some were drained for the first two days, but no difference was noted from those not so drained. In no case was death due to the operation. Of the 18 cases six were completely cured. The longest period since the laparotomy is five years and a quarter. In this case a second laparotomy had to be done nine months later. In another case the wound burst open and closed again after two months. This patient has been well for four years. The author mentions the different theories, mostly unsatisfactory, to account for recovery; he would attribute it to a variety of factors.—Deut. med. Woch., 1894, Nos. 45 and 46.

SUPRA PUBIC CYSTOTOMY.

M. Poucet, of Lyons, reported the results of 63 cases of cystostomy performed by himself.

In the beginning, he thought it highly important that we should distinguish those cases in which we operate for prostatic affections and those in which it has had recourse to for other conditions of the urinary passages.

The object of this operation is to establish a permanent opening for the passage of urine. He divided prostatic affections into those which were aseptic and the infected; though this division was rather theoretical than practical, as many were of a mixed class. With reference to the gravity this group only was important.

With 21 cases non-infected he had 21 cases; some definite and others temporary; that is to say, in a few prostatic symptoms some passed away and the opening above closed, while with others it remained patent.

False passages in the urethra, large hemorrhage, difficult and very painful catheterism are all formal indications for this operation.

In 42 infected cases the results varied, according to whether they were acute, subacute or chronic. In subacute cases cystostomy is but one means of relief. In 14 of this category four died after a few days, and the others lived from four to six months.

In chronic cases the results were worse yet, for in 24, seven died promptly after cystostomy, 10 lived less than a year, but 17 are now alive and comfortable.

Those who succumbed, he believed, sank, not from the operation, but the infected state of the prostate, which gave rise to a fatal form of septicemia.

With those who recovered, seven were continent, three partially continent, and in 12 there was complete incontinence.—*Le Progres Medical*, November 24, 1894.

THE CAUSE OF INGROWING TOE-NAIL.

Most authorities, says the Paris correspondent of the London Lan-

cet, August 25, state that this condition is due to the pressure of tightly fitting boots. Dionis, however, has observed this disease in unshod monks, and Binaud in bed-ridden tuberculous patients. Poucet, of Lyons, has shown that persons of lymphatic temperament, in whom the big toe is thick and the corresponding nail flat and small, are particularly subject to ingrowing of the nail. But the disease is frequently seen in the robust, in whom the great toe has been deviated from its normal direction by narrow-pointed boots. In these cases, however, M. Regnault ascribes the morbid condition of the nail to injury, such as a blow, combined with want of personal attention, which allows the culture in the groove of ordinary pyogenic microbes. Interrogation of the sufferer will often bring to light the occurrence of a contusion of the nail, followed in a few days by supuration at the external groove. Taken in time, these cases are easily treated by means of carbolic foot-baths and antiseptic dressings.

A NEW SURGICAL DRESSING.

Kikusi, a surgeon of Tokio, Japan, has called attention to a novel and what promises to be a very important article of surgical dressing. It is a form of charcoal derived from burning straw in a smouldering fire, or so arranged that the supply of air is insufficient for complete combustion. The little stalks of charcoal thus prepared are said to be highly hygroscopic, and to make a wonderfully cheap and efficient dressing for wounds. It may be applied directly or inclosed in little linen or cotton bags.—*National Druggist*.

CLASS IN PHYSICS.

Teacher—"Johnnie, what is a stratum?" Johnnie—"A stratum is a hen." Teacher—"Didn't I tell you that a stratum was a layer of anything?" Johnnie—"Yassum. 'Nain't a hen a layer of eggs?"—*National Druggist*.

Ophthalmology.

DR. J. A. TENNEY, Boston, Mass.
COLLABORATOR

CYCLOPHORIA.

Dr. Maddox gives in the *Ophthalmic Review* a new method of detecting cyclophoria. With a prism of six degrees, edge out, before the right eye, the patient is directed to look at a vertical line drawn on a piece of paper, and held at the near point of vision. Then suddenly rotate the prism to the vertical. The two images of the line are seen to cross each other at a small angle as they meet, before the eyes have time to fuse them. By rapidly rotating the prism, sufficient time is not given, and the angle is easily observed. The experiment may be varied by holding the line horizontally, when a weaker prism held vertically to start with will suffice.

A variation in the test is to draw a straight dotted line, and also a continuous red line parallel with it. These should be held horizontally. There is so little tendency to fuse with a vertical prism before the right eye of such a strength as to bring the false image of the dotted line over the true image of the red. There is so little tendency to fuse these two that the slightest angle between them can be leisurely observed. By drawing the two lines at various inclinations to each other, instead of being parallel, the angle can be accurately measured.

As regards latent torsion, it is important to bear in mind that in near vision apparent insufficiency of the obliques is just as physiological as latent deficiency of convergence, and in distant vision slight deviations are not unphysiological. Only extreme cases are probably to be regarded as likely to cause asthenopia.

According to Professor Panas 90 per cent. of retinal hemorrhages are caused by albuminuria. They have their seat in the layer of optic fibres, as it is there only that the vessels are of sufficient volume to produce

this form of hemorrhage. Oedema of the papilla exists at the same time, the optic nerve appearing as a reddish gray spot.

Sometimes the ophthalmoscopic appearances in albuminuric retinitis are marked, while the vision suffers scarcely at all; in other cases the patient has amblyopic symptoms, when no lesions can be discovered with the ophthalmoscope. The retinal affection is most severe, as a rule, when albumen is scarcely to be found in kidney disease.

Therapeutics.

DR. LOUIS LEWIS, Philadelphia.
COLLABORATOR.

AN ANTITOXINE FAILURE.

Dr. Dunnigan died of diphtheria at the General Hospital, in Buffalo on Friday, despite the use of antitoxine. After the first injection the patient's condition continued to grow gradually worse until the end came. The physicians at the hospital are loath to express themselves positively on the case, but the general opinion seems to be that the case had hardly been a fair test of the curative powers of antitoxine, as its administration had come too late, when the system had become so thoroughly impregnated by the ptomaines that the counteractive powers of the antitoxine proved inadequate.

ANTITOXINE OFFICIALLY COMMENDED.

Official reports in regard to the use of antitoxine in the districts of Trieste and Czernowitz show a large decrease in the mortality from diphtheria. The reports advise that the remedy be administered at the earliest possible moment.

"A NUTRITIOUS ARTICLE OF FOOD."

Dr. D. E. Salmon, chief of the Bureau of Animal Industry, Washington, D. C., says: "The flesh of horses in good condition is no doubt a nutritious article of food and may be

partaken of without danger to the consumer. The same may be said in regard to the flesh of several other species of animals which are not generally used for food in this country, and for which our people feel more or less repugnance. If horse flesh is used for human food, the consumer should of course have the means of knowing what he is eating. As horses slaughtered for this purpose are generally more or less broken down by hard usage and disease, there should be a rigid inspection of them at the time of slaughter. The Federal meat inspection law does not cover the inspection of horse flesh, and it is doubtful if the municipal authorities will maintain a sufficiently rigid inspection to insure the protection of consumers.

Both of the legs of a young lady of Boston were amputated at the knee recently to save her life. They were poisoned by the dye in red stockings which she had been wearing.

MECHANISM OF DEATH UNDER THE INFLUENCE OF COCAINE.

Maurel, of Toulouse, recently presented to the Paris Academy of Medicine (Sem. Med., November 14), a report embodying the results of some experiments on the toxic properties of cocaine. They showed that under the influence of that alkaloid the leucocytes undergo changes; they become spherical, rigid, increase in size, and no longer adhere to the walls of the vessels. On the other hand, as the capillaries contract under the influence of cocaine, thromboses and embolisms, particularly pulmonary embolisms, capable of causing fatal accidents may be produced. These changes in the leucocytes are seen even after small doses of cocaine, of a strength of 1 in 10; this explains the serious accidents which sometimes follow the administration of concentrated solutions of cocaine even in small doses. Pulmonary embolism being the accident more particularly to be feared in cocaine poisoning, it was a priori

probable that intra-arterial injections made in the direction of an unimportant viscus would be much less dangerous than intravenous injections. Maurel's experiments have shown that this hypothesis rests on a solid foundation; he was able to make injections of 5 grammes 10 centigrammes of cocaine per kilo. of body weight into the femoral artery of a rabbit without causing death. Maurel does not wish to be understood as teaching that the toxic action of cocaine is confined to its effect on the leucocytes; on the contrary, he thinks that it produces several other effects, in the front rank of which must be placed contraction of the small vessels.

PYÖKTANIN IN MALIGNANT GROWTHS.

Dr. Moritz showed a patient with sarcoma of the tonsil and upper jaw, in whom considerable improvement had resulted from the use of a saturated solution of the yellow pyoktanin (auranum). In April last injections commenced, three times weekly, of five minims of the solution each time, into the tumor. Since then the tumor of the hard palate has entirely disappeared, and there is under the apparently healthy mucous membrane a soft place where the cone had become absorbed. The tonsillar tumor has diminished to half its size, and the patient, who had been suffering greatly from dyspnea and difficulty in swallowing, suffers now no further discomfort. Dr. Milligan, who had also observed the patient during the course of treatment, was able to confirm Dr. Moritz's statement.—Providence Medical Journal.

EXTERNAL USE OF GUAIACOL AS AN ANTIPYRETIC.

Brill, of Unverricht's clinic, first refers to the unpleasant symptoms which have been noted after the external application of guaiacol. He has used the remedy in four cases of pneumonia, five of enteric, four of phthisis, one of bronchitis and two of rheumatism; one c.cm. was first applied, and if without result 1.5 to two c.cm.; more than three

c.cm. was never used. Smaller doses are without ill effects, but they cannot bring down the temperature. By increasing the dose the unpleasant symptoms appear, and thus the value of the results obtained may be very doubtful. These unpleasant symptoms are profuse sweating, feeling of weakness and even collapse. These results were such as to make him give up the use of guaiacol as an antipyretic. He then investigated the antineuralgic action of the drug. In 22 suitable cases, mostly of rheumatic pains, the external application of guaiacol was distinctly useful. The painful parts were painted with guaiacol as rapidly as possible to prevent evaporation; it was then rubbed in, and the parts covered with gutta-percha. No unpleasant effect on the skin was noted. The antipyretic effect of guaiacol is due to its absorption through the skin and its action on the heat centres. The author concludes that guaiacol applied externally in doses of 1.5 to 3 c.cm. acts energetically as an antipyretic, but its use as such is not to be recommended, owing to unpleasant bye-effects. In doses of 0.75 to 1.5 it has an antineuralgic action in the most varied diseases, and is without unpleasant consequences.—*Centralbl. f. inn. Med.*, November 24, 1894.

MEDICAL LADIES IN FRANCE.

The medical profession possesses little or no attraction for the fair sex in France. At the commencement of the present session, out of 155 female medical students at the Parisian schools only 16 were natives of the country; whereas on the Arts' side the proportion was 141 out of 164. The number of studentesses entered at the faculties of science and law is likewise very small, the inscriptions for the year amounting to only seven and three respectively.

DANGERS OF GOLF.

A physician reports a case of rupture of muscular fibres in the thigh of a powerful athletic man whilst playing golf. All sports are dangerous, and some are brutal.

Medicine.

DR. E. W. BING, Chester, Pa.
COLLABORATOR.

SOME LITTLE KNOWN EFFECTS OF CHLORAL HYDRATE. —HOLSTEIN.

Chloral exercises an action on the muscles and on the vaso-motor system. It is, in fact, an antispasmodic and vasodilator of great efficiency, as seen in its use in bronchial asthma. Given in small doses during the day chloral modifies the chilliness of the extremities so frequently complained of by anemics and neuropathic patients. Holstein considers chloral as the best remedy in the obstinate constipation, of neurasthenics, and which is rebellious to ordinary drugs. The laxative dose is 1 gr. 50 (25 grs.) given at bed-time. It can, of course, be used only occasionally, to prevent the chloral habit, and certain indications, as heart disease, or tendency to delirium, must be taken account of.

THREE CASES OF PULMONARY TUBERCULOSIS TREATED WITH CANTHARIDATE OF POTASSA.

The writer, Petteruti, treated these cases with this drug. One case was in a somewhat advanced state, while the other two showed signs of nurosis of the lung. In these the treatment was not carefully followed out. In the other case the injections were continued for about two months, and the following phenomena were noticed: Soon after each injection the urine was charged with urobilin, but no albumen was found in it, except once, when the dose being reduced it disappeared. The appetite and digestive functions improved from the beginning of treatment. Expectoration became easier and more abundant, cough less frequent and rack-ing; the amount of bacilli increased during the first seven or eight injections. When the patient left the hospital there still existed a small quantity of bacilli in the sputa, and

examination of the lung showed no marked local change. Nutrition alone was sensibly improved. The injections were not usually followed by rise in temperature—the thermometer only gave the usual fluctuations in daily temperature—in short, there was no reaction such as seen after the injection of Koch's lymph.

The case was not followed, as the patient left the hospital at the end of eight weeks.—Rev. de Therap.

TREATMENT OF EPILEPSY.

J. Corton has had very favorable results by the use of oxide of zinc according to Herpin's method. He cured four out of seven cases. The doses varied for the adult 25 grs. to two grs. 50. The drug was given in increasing doses. The only difficulty is that it is liable to provoke nausea. The valerinate of zinc has also acted very well.—Rev. de Therap.

DRUGS USEFUL IN AMENORRHEA.

R—Hydrag. bichlor.
Arsenate soda.
Ext. tinc. vom.
Potass. carb.
Ferri sulph. erosic.
To be given in the usual doses.

Maurel recommends groundsell (senecio) as a remedy in functional amenorrhea. It is given in infusion, fl. extract or in the active principle senecine. It should be taken for 15 days before expected appearance.

NEW TREATMENT FOR NASAL HEMORRHAGE.

Trichloroacetic acid in strength of three per cent. solution is applied to the nasal septum. It is advisable to add some drops of a solution of cocaine, 1 to 20, to mitigate the burning sensation caused by the acid.—Rev. de Therap. M. C.

The Revue de Therapeutique Medico-Chirurgicale mentions a case of uncontrollable vomiting in a hysterical patient, which had lasted 10 months, as being cured by hypnotic suggestion at the hands of Dr. Dumontpallier, in three seances, and also a case of hystero epileptic vertigo cured by means of the rotating mirrors.

The following operations were performed during the hypnotic sleep by Dr. Scheneltz, of Nice. The first operation was for removal of a scirrhus tumor of the breast, the second was for ectropion. Anesthesia was complete in each case. The advantages of this method are as follows:

* * *

It removes the dangers of chloroform, ether, etc., the sleep may be prolonged if necessary. The result is obtained in a very short time. If the sleep does not occur at once it may be hastened by closing the eyes gently, and when once closed anesthesia is generally complete.

* * *

Borax is recommended as a remedy in epilepsy.

* * *

Marrow is highly extolled as a curative in pernicious anemia.

* * *

In prescribing aristol, or iodoform, in ointments, a little ether should be rubbed with the drug before mixing with the base. This gives a much finer division than is usually found.

* * *

THE SMALL-POX AMEBA.

Dr. Maximilian Herzog, of Chicago, claims to have discovered a "small-pox ameba," the presence of which in the blood on the first or second day after vaccination is the only sure test of a successful vaccination. No matter how swollen the arm or uncomfortable the patient, the vaccination is not effective unless the "ameba" is found, the unpleasant symptoms being due to the vaccine points being loaded with croton oil, or some other irritant!

CEMENT FOR IVORY.

The Bayer. Ind. u Gew. Bl. recommends the following: Swell 40 parts of white gelatin in 600 parts of distilled water. Put in the waterbath and evaporate down to 100 parts. To this add two parts of mastic dissolved in 10 parts of alcohol, and finally stir in five parts of zinc oxide. This cement answers equally well for china and similar articles, but will not stand washing in hot water, unless performed very rapidly.

Miscellany.

A NEW CALEDONIAN ANTIMALARIAL TREE.

Commercial Agent Le Mescam writes from Noumea, New Caledonia, as follows: "From time to time I have received requests from citizens of divers Southern States for seed of the niaouli tree of New Caledonia. This tree (*Melaleuca leucodendron*) is the characteristic wood of this country. It blooms in January and June. Its wood is of a reddish color and hard; it works well, more especially for wheelwright purposes. It has a suberous or cork-like bark, and replaces cork in some of its usages. The leaves are employed for medical purposes; when distilled they give an essence which is a powerful antiseptic. It is generally admitted that the exceptional salubrity of New Caledonia is due to the essence of this wood. The vicinity of swamps is not dangerous to health here. It is probable that the above facts are known to some residents of the United States, hence the requests for seed which have reached me. I send a small parcel of the niaouli seed to the Department of Agriculture through the United States dispatch agent at San Francisco. The seed is still mostly attached to the boughs in its pods. These should be bruised before planting. Each pod contains a large quantity of seed, which are very small and shaped like a comma. They should be sown in spring, in hotbeds of light earth, well watered at all seasons, and always kept from frost. The young plants are ready for transportation in 15 months after sowing, when no more care is necessary in climates not subject to frost.—National Druggist.

Dr. J. J. Kinyoun, passed assistant surgeon U. S. Marine Hospital service, Washington, D. C., has spent several months in Europe investigating the production of antitoxine and

its use in the treatment of diphtheria. He has visited a number of hospitals where the antitoxine has been employed, as well as the Pasteur Institute in Paris, the Institute for Infectious Diseases (Koch's) in Berlin and the Schering Laboratories in Berlin. In his letter to the Supervising Surgeon-General, dated Berlin, November 6, 1894, he makes the following statement:

"Through the courtesy of Dr. Dittmar, the Director of the Schering Chemical Factory, I was also accorded the privilege of visiting their place to observe the methods employed by Dr. Aronson in obtaining the antitoxine, some of which I had seen used in the hospital wards.

"At one of their factories near Berlin the firm has a well-equipped bacteriological laboratory for producing the toxins and preparing the serum. Near by they have well-arranged stables and paddocks for the animals. At this time they have 70 horses, 30 sheep and a number of goats in various stages of treatment.

"The work as carried out by Dr. Aronson and his assistants compares favorably with any which I have seen in Berlin. He has all the necessary appliances in his laboratory, possessing the requisite knowledge and training in this special branch. Being provided with the facilities for good work, I see no reason why he cannot produce as good serum as any others here. In some of the technique I am inclined to believe it is better than that practiced by those in the Koch Institute, i. e., in the preparation of the serum. Aronson adds a small quantity of trikresol to the serum—0.4 to 0.6 per cent. This causes a slight flocculent precipitate, which is filtered off, and then the serum is passed through an unglazed porcelain filter, when it is transferred into small sterilized bottles and sent out for use.

"Aronson has not attempted to make more than one strength of the antitoxine. That which I saw used in the hospital had the same effects as Behring's No. 2 (1 to 1000). Aronson claims to produce a stronger serum than Behring."

Prescriptions.

ABSCESSSES.

- R—Calcii sulphidi, gr. j.
Sacch. lactis, gr. x.
M.—et. ft. chart. no. x. S. One every two hours.
- R—Ungt. belladon., oz. j.
Pulv. camphor., dr. j.
M. S. Apply locally, with slight friction. (Abscess of breast.)
- R—Iodoformi, dr. iiss-v.
Aetheris, oz. vj.
M S. Inject oz. iii-v after aspirating abscess. (Cold.)
- R—Cerati resinae co., oz. j.
Olei olivae, dr. i-j.
M. S. Apply on soft linen. (When suppuration threatens in breast.)

ABORTION.

- R—Tr. opii deod., dr., ix.
Sod. bromid., dr. iij.
Chloral hydrat., dr. iss.
Syr. acaciae, oz. j.
Aqua q. s. ad oz. iij.
M. S. dr. ij. in water every four hours.
- E. Wilson.
- R—Mist. asafoetidae, oz. viij.
S. oz. ss several times a day, in habitual abortion.
- Negri.

AGUE.

- R—Ferri redacti,
Quininae sulph., aa dr. ss.
Acid. arseniosi, gr. j.
M. Ft. in pil. no. xv. S. One, two or three times a day, after meals.
(To restore to blood its normal constituents.)
- Bemiss.
- R—Ferri et Quin—Citrat., scr. i—dr. ss
Infus gentian, oz. iv.
M. S. oz ss two or three times a day.
- R—Quininae sulphat., scr. j.
Tr. ferri chloridi, dr. ij.
Aqua cinnamom., dr. vj.
M. S. dr j two or three times a day in sweetened water.
- Bemiss.
- R—Ferri ammonio-sulphat., scr., ij.
Quininae sulphat., scr., j.
Acid sulphur, dil., dr. j.
Aqua cinnamom., dr. vj.
M. S. dr. j in sweetened water twice a day. (Where there is a tendency to serous effusion).
- Bemiss.
- R—Magnesii sulphatis, oz. i-j.
Ferri sulphatis, scr., ij.
Acid sulphur, dil., dr. ij.
Syr. aurant, cort., dr. vj.
Aquam, ad oz. vj.
M. S. dr. j in water twice daily (Restorative and eliminative.)
- Bemiss.
- From Physician's Vade Mecum.

BOOKS AND PAMPHLETS RECEIVED.

- NOTES ON A FEW CLINICAL EXPERIENCES OF INHERITED SYPHILIS. By Burnside Foster, M. D., St. Paul. Reprint from Northwestern Lancet, 1894.
- THE RELATION OF STATIC DISTURBANCES OF THE ABDOMINAL VISCERA TO DISPLACEMENTS OF THE PELVIC ORGANS. By J. H. Kellogg, M. D., Battle Creek, Mich. Reprinted from the proceedings of the International Periodical Congress of Gynecology and Obstetrics, 1892.
- SYSTIC GOITRE WITH CASES IN PRACTICE. By A. Britton Deynard, M. D., New York. Reprinted from the Medical and Surgical Reporter, June 24, 1893.
- SURGICAL TREATMENT OF TUMORS OF THE NECK. By Thomas H. Manley, M. D., New York. Reprinted from "The Medical Brief," St. Louis, Mo., 1894.
- TUBERCULOSIS IN THE ANORECTAL REGION. By Thomas H. Manley, M. D., New York. Reprinted from "The Medical Brief," St. Louis, Mo., 1894.
- REPORT OF THE SURGEON-GENERAL OF THE ARMY TO THE SECRETARY OF WAR FOR THE FISCAL YEAR ENDING JUNE 30, 1894. Washington, Government Printing Office, 1894.
- REPORT OF THE SURGEON-GENERAL, U. S. NAVY, CHIEF OF THE BUREAU OF MEDICINE AND SURGERY, TO THE SECRETARY OF THE NAVY, 1894. Washington, Government Printing Office, 1894.
- DEFORMITIES OF THE FACE AND ORTHOPEDICS—TREATMENT OF SPINAL CURVATURES WITH NEW ALUMINUM SHELL JACKETS—ARTIFICIAL DEVICES FOR DEFORMITIES OF THE FACE. By Frank L. R. Tetamore, M. D., New York. Reprints from New England Med. Journal.
- CHAIRMAN'S ADDRESS, SECTION OF OBSTETRICS, A. M. A. By Joseph Eastman, M. D., LL. D. Reprinted from the Journal of the American Medical Association,

Wayside Notes.

DR. E. B. SANGREE, Philadelphia.
COLLABORATOR.

The editor of this journal recently published an article deploring the almost forgotten, or at least the greatly neglected custom of bleeding. While not at all upholding Dr. Sangrado's method of practice, I think we all meet with cases in which the abstraction of more or less blood would greatly help nature and expedite recovery, and sometimes some life.

* * *

The withdrawal of even a small amount of blood has sometimes a surprising good effect, and one that is difficult to explain. Some years since I examined for a life insurance company a man of rather full habit, sedentary occupation and plethoric build. He told me that every year when the hot weather set in he was troubled by so much vertigo that he was unable to attend to his work. Were he to lean forward over his desk, for instance, he would be likely to tumble over after his head. If, however, he had wet cups applied to the back of his neck at this time he had no more trouble the remainder of the summer. In evidence he showed me his neck, which was scarred like a German duellist's face. An interesting feature of this case was the fact that his father suffered in the same way, and for many years had been cupped regularly once every summer.

I recall another instance of the comparative permanency in good result after a small blood-letting. A woman of 34 had been suffering some days from a very severe congestive headache. She had marked optic neuritis and was subject to such headaches, and I had tried other remedies on this particular one with trifling effect. Finally I applied several wet cups to the base of the neck posteriorly, and gave her a relief that was almost immediate and that lasted for months. Yet

hardly two teaspoonfuls of blood were drawn. In addition to these I have in mind several other cases of a similar character.

It is hard to explain satisfactorily the marked relief obtained, as it seems incredible that the abstraction of so small an amount of blood could give so considerable a result. An old proverb alludes to the "last straw that broke the camel's back," and it seems to me that in these cases the little bit of blood drawn has acted like the well-known "last straw." The blood vessels, of course, are very elastic, and will readily accommodate themselves to varying quantities of blood, but there must be a limit to their power of accommodation, and when that is reached trouble will occur.

The over tension probably results in a semi-paralytic condition of the vessel walls, and the consequent engorgement pressing upon the nerve filaments gives rise to pain. If this is granted, then the condition ought to be relieved by the abstraction of even a small amount of blood; the vessel walls thus getting a chance to regain their tonic force the current onward in the wonted manner and take away the pressure from the surrounding tissues. The mere act of cupping may also by reflex nerve stimulation assist in bringing about the good result.

AMALGAMATION OF ZINC BATTERY PLATES.

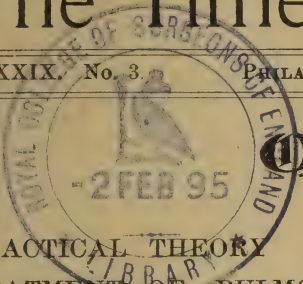
Oppermann, in Bayer. Ind. u. Gewerb.-Bl., recommends the following process: To an aqueous mixture of mercury sulph-oxide add sufficient sulphuric acid to exactly dissolve. To the solution add sufficient aqueous solution of oxalic acid to make a white mixture the consistency of thin broth. A small amount of ammonium hydrochlorate is then added, and the liquid painted over the zinc elements with a brush. A strong friction with clean rags is then made, and finally the elements are rinsed first in concentrated sulphuric acid, and afterward in water. The amalgamation is very complete.

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Original.

A PRACTICAL THEORY AND TREATMENT OF PULMON- ARY TUBERCULOSIS.

BY FRANK S. PARSONS, M. D.,
PHILADELPHIA, PA.

Editor of The Times and Register.

(Continued from Last Number).

It seems nonsensical to assume that a micrococcus alone should have the power of limiting a disease like pneumonia to a solitary lobe of a lung. If microbes play a primary part in the etiology of disease through the medium of the blood, why do they not occasion uniform inflammations in the various organs or parts of the body and not confine themselves to specific spots, as they are said to do in pneumonia or diphtheria? Blood serum, if it is a developing medium anywhere, must be so throughout the entire body.

It is a fact that in phthisis, or tuberculosis, the venous blood is brighter than normal. This gives evidence that the oxygen imbibed by the red blood-corpuscles, in the lungs, is not properly oxidized in the tissues, and passes over through the capillaries in a free state. This fact would imply that there was a deficiency in an oxidizing element. We know that the blood contains phosphorus in an oxidizable form, and that oxygen has a great chemical affinity for phosphorus; hence, it is not out of reason to infer that in the condition known as tuberculosis there is a deficiency in oxidizable phosphorus. This fact is proven by the supplying to the blood of a phthisical person an oxidizable form of phosphorus, when it will be seen

that the venous blood assumes its naturally darkened hue.

We know that every effort, mental or physical, oxidizes this element in the organism into phosphate, a waste product, and that there is also direct connection between the excretion of the phosphates and the waste of nervous element. The abundance of means for causing an excess of oxidizable phosphorus to become a waste product in the shape of the phosphates gives ample opportunity for a condition of devitalization. This element may not be the only chemical agent in tuberculosis, but that it is a very important one is evidenced by the results of treatment along this line.

The question whether pulmonary tuberculosis may be communicated by contagion, or infection, does not rest with the proving that a specific germ is found in this disease, for we know that unless a favorable medium is presented such germ will not develop, and that to obtain this medium there must be a condition to be recognized as pathological. If an element of infection exist in any locality, and we take for a criterion the fact that ozonized atmospheres are exempt from tuberculous cases developing in them, then it holds that there must be a proportionate deficiency in oxygen in those localities in which tuberculosis is developed. Ozonized atmospheres are both beneficial to the oxidation of the blood and the destroying of microorganisms. Living in localities where there is a tendency to deficient oxidation of the tissues will, as a consequence, tend to increase waste elements; which, if there be an incapacitated lymphatic system to carry such waste away from situations where they will do harm (as might follow a pneumonia, laryn-

gitis, or other acute inflammation of the respiratory tract), may cause the starting point of tuberculosis. Bacilli may be communicated if there is found favorable lodging for their development.

The conclusions regarding the etiology of pulmonary tuberculosis which the writer has endeavored to show may be summed as follows:

That pulmonary tuberculosis is due, primarily, to a lymphatic stasis.

That such lymphatic stasis may be congenital, or acquired, as a result of incompetency of excrementory function. That incompetency of excrementory function may be developed from acute diseases, especially of the respiratory organs, or from gradually increasing stasis of waste material due to overtaxation of excrementory organs (where such can be overtaxed), by deoxidation of the tissues.

That the tubercle bacillus is to be regarded as a development, existing simply because favorable media are presented, in the lymphatic stasis, for its cultivation. The development is often some length of time after the stasis is apparent, and in some favorable cases may not develop at all. Bacilli may exert influence on the disease as foreign bodies, similar to other foreign or waste elements; but are not, primarily, causative. They form excellent symptoms of tuberculosis if they develop early enough, but the mere removal of them will not cure the disease, unless such removal implies restored excrementitious function and perfect lymphatic circulation and elimination.

That tuberculosis implies the atrophy of the pancreatic gland in the majority of cases, but that the dislike of fats by phthisical persons, or those having a consumptive tendency, is the only symptom we can depend upon to show that in the pancreas may lie the origin of this disease.

CONCERNING THE EARLY SYMPTOMS OF PULMONARY TUBERCULOSIS.

The ordinary symptoms of tuberculosis of the lungs are so familiar

to physicians at large as not to need consideration in a paper of this character. There is, however, one symptom that presents and accompanies all others, and which, strange to say, has been entirely overlooked, so far as the writer knows, until attention was directed to it by Professor Garretson, in his clinical lectures. This refers to a dislike of fats by people having the phthisical tendency. Observation will show that fat-eaters are almost entirely exempt from the disease we now consider; while, on the other hand, the information that the appetite and stomach of a patient refuse fats is to be accepted as diagnostic of the condition established, or of dangerous and formidable tendency to it.

The universality of this dislike and refusal of fats by the destined victims of phthisis commands for the peculiarity the first place in a consideration of symptoms.

To what is to be referred the dislike and refusal?

It is a deduction by Dr. Garretson that the pancreas is at fault in all such persons; and that with this gland is not unlikely to be found the origin of all those cases of gradually developing consumption which constitutes the large majority. The writer has fully satisfied himself, out of sufficient data, that too much importance cannot be made of this symptom; for, with its early recognition, before destructive changes have taken place, we have our greatest hopes for successful treatment.

The symptom indicates that there is either faulty secretion from the pancreas, whose function is to furnish a chemical product for the emulsification of fats; or a chemical inferiority of the secretion, by reason of impaired nutrition; otherwise an inability on the part of the lacteals to properly absorb the emulsion.

The first could easily exist in a congenital abnormality of the pancreas. The last would exist in intestinal catarrh.

Another important early symptom, though not pathognomonic, but suggestive, lies in the abnormal weakness generally observed in consump-

tives. This languor is undoubtedly due to the deficiency in oxidizable phosphorus and the increase in waste phosphates, dependent on retrograde tissue metamorphoses. It is in this manner that the vitalization of the tissues is impaired, and weakness is a symptomatic result. Too often this symptom is passed over by the physician as an indication of "malaria."

Limited lung and chest expansion, while not essentially an early symptom of phthisis, when it exists is very suggestive, and demands therapeutic attention.

Another of the early symptoms, which has important bearing on the therapy of tuberculosis, is chronic gastric catarrh. More strictly classified, it is a complication, as it is to be regarded as a result of the general systemic disturbance rather than a tubercular lesion of the stomach.

Other physical signs of phthisis are of great importance. Mention of some of them may not be out of place. The signs belonging to the incipient stage are slight dullness on percussion, broncho-vesicular respiration, or a weakened respiratory murmur, more or less frequency in respiration, some increase in the vocal resonance, increased bronchial whisper, occasional subcrepitant rales, pleuretic friction murmur, and abnormal transmission of the heart sounds. Most of these signs are limited to the summit of the chest on one side. As the case advances the physical signs are intensified and augmented. Pectoriloquy may be present before and after the formation of cavities. In the former instance the transmission of speech is by solidified lung; in the latter, it occurs through a cavity. Cavernous sounds accompany the formation of cavities only.

Hemoptysis is likely to happen early in the disease, in the majority of cases; and, if before cavity formation, it is to be regarded as indicative of congestion and rupture of the smaller bronchial vessels. After cavities have formed, bleeding may originate from their walls. Occasionally, in the latter instance, a

large vessel may be opened, causing fatal hemorrhage.

If the larynx be involved, huskiness or hoarseness of voice exists. Occasionally the voice may be lost entirely for a space of time.

Rise in temperature is an early sign, and one apt to be attributed to malarial disease on account of its intermittent quality.

Anemia and pallor of countenance are more or less marked from the beginning as a result of impoverished blood.

Tuberculous peritonitis may occur as an acute or chronic affection, and is to be regarded as symptomatic of the pulmonary type only in regard to the tendency it exhibits toward subsequent involvement of the lymphatic system in the lung. A peculiar consequence of treatment is the curability of tuberculous peritonitis by laparotomy. This has lately been attributed to the entrance of the staphylococcus through the atmospheric air, and the claim made that the toxalbumen from this micro-organism is antagonistic to the tubercle bacillus. If this were true, we would have no pulmonary tuberculosis; for we are breathing into our lungs, daily, staphylococci enough to generate toxalbumens for a nation; and, if there is any such antagonistic action on tuberculous products in the peritoneum, why not in the lung? The effect of atmospheric air on the serous membrane of the peritoneum seems to have the effect of restoring eliminative function of the efferent vessels; a thing it does not establish in the lung.

Microscopically, a third blood-corpuscle has said to have been demonstrated, which is attributed by some to be one of the causative factors of this disease. It is doubtful if this corpuscle be more than an altered leucocyte; possibly occurring as waste, but not at all causative. It remains to be proven whether it be symptomatic or not.

The venous blood of phthisical persons is brighter than normal, unless they are undergoing treatment by hypophosphites.

THE MORTALITY OF TUBERCULOSIS.

Evidence is given that the mortality from this disease is no greater at the present day than it was hundreds of years ago. A recent article was published in an exchange, which I regret having mislaid, showing that, in Jewish history, years before the Christian era, consumption was as rampant as now. This would tend to refute the idea that tuberculosis is at present on the increase, and at the same time indicate that we possess no better therapy for this affection now than did the ancients.

The Medical Record published some time since an article showing the different occupations predisposing to tuberculosis, and I can do no better than to quote the article here.

"The greatest number of deaths from phthisis occur in workers exposed to irritating substances in the respired air. In Switzerland 10 out of 100 stone cutters die from phthisis. In England of 1000 deaths occurring in these workers, 340 were from phthisis. Tuberculosis makes cruel onslaught likewise in those individuals who habitually occupy a bent posture at their occupations, and in those who live sedentary and intellectual lives. Of 1000 deaths in Italy among students and seminarists 450 died of phthisis—that is, nearly one-half. In England, of a similar number of deaths in printers, 430 died of phthisis."

"On the other hand, statistics show that it was quite exceptional for this disease to be the cause of death of those who live in open air. Switzerland, of 1000 deaths occurring in outdoor laborers and farmers, not more than one or two die from phthisis. A similar number of deaths in Italy among shepherds and farmers shows only from 44 to 45 deaths."

"In France the sanitary statistics gathered from 662 towns show that the more the population is conglomerated, so in proportion are the inhabitants gravely infected with tuberculosis."

(To be Continued.)

I. DEMONSTRATION OF A MECHANISM OF INTUSSUSCEPTION.

II. EXHIBITION OF SPECIMENS ILLUSTRATING EACH STEP IN THE PROCESS OF INFECTIVE APPENDICITIS.

BY HOBERT T. MORRIS, M. D.,
New York City.

Read before the Philadelphia County
Medical Society, Nov. 28, 1894.

I. Experiment. I shall expose the ileum of a rabbit, and it will then be observed that when it is touched with carbonate of sodium, contraction of the circular fibres of the bowel at the point touched will take place in from fifteen to thirty seconds. The longitudinal fibres of the bowel still carrying on peristaltic movement (a reversed peristalsis, by the way), will invaginate that portion of the bowel which is in a state of firm contraction. I do not know the exact value of this experiment except that it shows the mechanism of one form of intussusception. We know that certain ptomaines produce muscular spasm, and it is fair to assume that some cases of intussusception are due to a poisoning of the muscular fibres of the bowel as in the experiment. In post-mortem intussusception, as I have watched it, there has been paralysis of the circular fibres of the bowel and an adjacent segment of bowel has dropped into the relaxed portion, almost the reverse of the mechanism demonstrated in this experiment.

APPENDICITIS SPECIMENS.

II. Appendicitis I believe to be an infective exudative inflammation of the appendix vermiformis, which follows the production of an infection atrium of any sort in the mucosa or in the peritoneal covering of the appendix. I believe that when the infection atrium has been produced, bacteria at once enter the lymphoid structure and the cellular coats, and that then the stage of exudation begins and the tissues are compressed by the exudate. There is no doubt that in the majority of cases we have an exudate compression which is fatal or has a tendency to be fatal

to the lymphoid and cellular coats, and the reason is because the lymphoid and connective tissue and mucosa are confined within a narrow tube of muscle and peritoneum. In the colon, when infection begins and exudation takes place, there is abundance of room for swelling, and the interstitial exudation does not lead to compression and anaemia. In the narrow appendix there is not room. The lymphoid tissue cannot do its work as a strainer of bacteria, and therefore the lymphoid, mucosa and connective tissue forming the inner tube are compressed to the point of strangulation in many cases. If not to the point of strangulation, there is produced compression anemia, which allows more rapid toxic destruction of the cells, and the toxins produced by the bacteria which have entered the infection atrium cause destruction of the cells before nuclein can be poured out and the leucocytes do their work. Thus there is frequently rapid destruction of the mucosa and lymphoid coats which should act as a protecting coat, but which is destroyed and becomes a prey to bacteria because it is under compression.

Very early proliferative endarteritis commences, and this occurs, as you will remember, in a small terminal artery, for practically the only arterial supply of the appendix is from a solitary terminal artery. If a branch of the artery becomes occluded, we have a round punch hole slough formed at the point supplied by this branch. If more of the artery becomes obliterated, we frequently have complete gangrene of the appendix. Only a few hours are required for an obliterating endarteritis to become sufficiently marked to lead to destruction of all parts not supplied with blood by bacteria which are ready to pounce upon such parts. I think that usually in the very early stage of the infection we have a mixed infection. Streptococci are apt to be present, and these, with other bacteria, send the temperature up. The temperature from infection by streptococci or from mixed infection may be quite high, whereas when the infection

is from the colon bacillus the temperature is apt to be not high, but about 100 degrees to perhaps 101 degrees during a most violent attack of infective appendicitis going on to death. This statement in regard to temperature I am almost prepared to make as a direct statement, but I shall wait for more observations before asserting that a high temperature indicates streptococci or mixed infection, and that a low temperature indicates a colon bacillus infection. I am almost certain, however, that the toxine of the colon bacillus does not send the temperature high.

Specimens. The first is a normal appendix removed post-mortem.

The next specimen shows the effect of exudation into the appendix a few hours after infection has taken place. The inner tube, composed of the lymphoid and connective tissue, is distinctly swollen. In the third specimen we find a little rhexis, all the structures being infiltrated with blood.

There is a complete rhexis involving all the tissues in the fourth specimen, the fibres of all structures being separated by effused blood. In the case from which the specimen was removed the wound was very septic, and no granulations formed for eight days. The patient then developed pneumonia of the right side, and after the pneumonia was well under way the appendix wound began to granulate and the patient recovered.

The fifth is another early specimen, in which there is a pin-hole puncture. In this case the appendicitis had lasted about forty-eight hours. The artery, being obliterated at this point, allowed a small pin-hole opening to form.

The sixth specimen, an inch of which has been removed, shows very nicely how the interstitial exudation causes the inner tube to be compressed by the outer tube.

Here is a specimen in which the bacteria have been confined to the appendix for several days and then suddenly passed through the mesoappendix, and the patient developed acute septic peritonitis.

Here is another specimen in which a small punch-hole perforation formed and was immediately walled in by lymph. The appendix was quite free, except at the tip, where this mass of exudate held it. This is a chronic ulcerating appendix. After the acute stage of infection is passed the ulceration is apt to continue, because the appendix is a nook in which bacteria persist, and after the mucous membrane is destroyed the bacteria are apt to keep up a vigorous onslaught on the exposed tissues. There are the appendices that produce fatty concretions. I have found that concretions in the appendix are phosphatic, fecal, or fatty. Some of these concretions contain 50 per cent. of fat. It occurred to me that possibly a retrograde change in the lymphoid might account for it, and consequently I submitted the lymph coats of several appendices for examination. From normal appendices I obtained 8 per cent. of fat; from appendices with small ulcerated spots, 19 per cent.; and from appendices with general ulceration of the mucous and lymphoid coats, 26 per cent. This showed that the proportion of fat in chronic ulcerating appendices was very large, and if the products were confined in the tubes it is probable that these fatty concretions come from that source.

Before gangrene in the appendix has occurred we sometimes find gangrene of the mesoappendix from thrombosis of the veins and obliterating endarteritis. Sometimes the appendix seems to receive enough nutrition from the caecum to live a few hours longer than the mesoappendix.

After infection has continued for sometime—a few years—we frequently find excessive hypertrophy of the appendix. This specimen shows this hypertrophy in an appendix which was the seat of chronic ulceration. Most of the time this patient was without symptoms, but at times he was compelled to give up work. I found the appendix extremely tender on palpation, and learned that of late he had referred the pain to that region.

In some cases after destruction of

the mucosa gradual wasting of the lymph coat takes place. This is shown in this mount of four transverse sections. In the first, the mucosa and submucosa are swollen with exudate. In the next the mucous coat has disappeared and the lymphoid has almost disappeared. In the next, nothing but the muscular and peritoneal coat remain, and in the last there is no lumen and only a little remnant of the muscular and peritoneal coats.

In cases in which the terminal artery is involved quickly in proliferating endarteritis the entire appendix may become gangrenous. Here is an appendix which became completely gangrenous in thirty-six hours. No portion of this appendix remained alive, and there was an opening of about two inches in the caecum.

After the various structures have disappeared, leaving little but the muscle and peritoneum, there may be marked symptoms from sclerosis of the nerves. The nerves of the appendix not destroyed become involved in the cicatricial contraction and frequently keep up a great deal of disturbance in this vicinity, and not infrequently the movements of the colon are inhibited. As a result we are apt to have chronic constipation. I have now removed several such stumps, and the patients have immediately felt relief.

The patient from whom this specimen was removed had had several attacks of appendicitis, and on removing the appendix I found that it was filled with nematoid worms. The caecum is a favorite resort for the oxyuris, and I have no doubt that the presence of the oxyuris in the appendix not infrequently gives rise to an infection atrium.

Here is a specimen showing three distinct cavities with contractures between. It was extremely firmly adherent. This patient had a number of mild attacks, and once an abscess opened externally, and finally we were obliged to remove this stump containing three well-marked cavities similar to what we often see in pus tubes.

Among the latter forms is one

represented by these two specimens. These were removed from a professor in one of our colleges. He was unable to stand, and was compelled to give up his work for a year. On removing the appendix I found these two portions some distance apart. The little short stump represents the healed appendix. The lower portion was an inch and a half away from the stump. It was a focus of infection, and was kept alive by adhesion to surrounding tissues.

If we were to consider the complication of appendicitis this evening we should open up an enormous field. I shall simply show a specimen belonging to Dr. Willard. Here we have an abscess of the liver, which is not an infrequent complication, and probably occurs oftener than is generally supposed. In very mild cases, and in cases in which the infection has been in progress for not more than two days, I have found infected thrombi in the meso-appendix, which could easily lead to emboli and abscess of the liver. I am quite sure that this occurs in cases where appendicitis is not suspected. It is not necessary that there should be gangrene or extensive disease of the appendix to have embolism.

THE IDEAL CLIMATE FOR CONSUMPTIVES TO SURVIVE IN.

BY R. H. STANCELL, JR., M. D.,
Southern Pines, N. C.

The influence of climate and its value in the treatment of tuberculosis is doubtless occupying the minds of many of the "Times and Register" readers just at this time. The holidays being over, perhaps many physicians can induce patients who ought to do so to leave home and seek a more congenial sphere. Where shall such patients be sent? is perhaps an open question with some. This paper is intended to partially answer that question. Mountain altitudes are indicated in some cases and as strongly contra-indicated in others. Dampness and ex-

treme cold are to be avoided. Some place where the patient can be out of doors a great deal of the time, but which is not warm enough to relax and enervate, is undoubtedly best for most cases. Professor S. Solis Cohen, in "Hare's System of Therapeutics," says:

"The ideal climate for the consumptive to survive in, or the convalescent subject to be guarded from exposure—a climate which exists so far as I know only as an ideal—is characterized first by a relative equality; but it is not absolutely unchanging, for this would produce a physical as well as a mental ennui. There is always sunshine, the air is dry, though not parched; the temperature moderate. Warm climates are for those only who need continual protection; they expect no positive curative influence. Cold is usually beneficial in treatment and in prophylaxis, more especially where conjoined with altitude. There is sufficient rainfall, but the ground soon becomes dry again, so that we may walk out a short time after the rain ceases. Springs and brooks whose purity is guarded supply clear refreshing water. There are mild breezes to keep the air in motion, but no bleak winds.

"The ideal climate for one to get well in is less equable and more bracing; while in the best form of prophylaxis that which aims not so much to guard against assault as to strengthen the organism that assault may be successfully resisted. Changes are useful, provided they are not sudden nor extensive. They materially assist in developing the health-preserving powers of reaction.

"For all, the ideal air is pure, coming from regions beyond human contamination, constantly renewing its supply of 'vitalizing oxygen,' and going to be depurated before it has imbibed sufficient noxious matters to become injurious. It is also restorative by reason of its ozone and its balsamic, terebinthinate, or mineral vapors, which exist, however, in small proportions, so that one soon becomes unconscious of them, save when they are recalled by contrast; nevertheless, there is always experi-

enced a sense of delight in respiration, apart from the gratification due to odor. There are charms in the scenery to take one out of doors and make it pleasant to remain out. If specially delightful spots are within reasonable distance of one's house, so that an incentive is given for little jaunts, it is so much the better. Human habitations are not closely packed, but scattered about, so that all have free air space. The nearest approaches to the ideal are found among the pines in hilly regions, at the seashore and on the sea according to the season."

On the highest point of Shaw's Ridge, the highest ridge in the long-leaved pine belt, is the village of Southern Pines. It is in Moore County, N. C., upon the main line of the Seaboard Air Line.

If the author quoted above had visited this spot and been trying to write a description of it, he could scarcely have described it more accurately than the quotation does. Of course, there are exceptions. No region is perfect, but this seems to approach it as closely as any other.

For fifty miles on either side the pine forests extend, only broken here and there by a small clearing. The ridge is an enormous sand bank, ninety feet deep in some places, through which the rainfall pours almost as rapidly as it falls. One can walk in the street dry-shod half an hour after a hard rain, and mirabile dictu! there is not a mudhole in the town. The air is laden with ozone, and the village is almost the centre of the North Carolina turpentine producing region, hence the terebinthinate odor or principle is largely present, and the peculiar balsamic odor of the pines is particularly noticeable.

The elevation is six hundred feet. The air is dry and in almost constant motion. The soil is dry, and there are as many sunshiny days during the year as at any other location. There are numerous springs supplying numberless clear, rapid brooks, either one of which might have inspired Tennyson to write "The Brook."

There are many attractions to take

the invalid out of doors. The mean mean temperature is 58 degrees; summer, 77 degrees; winter, 44 degrees; average minimum, 13 degrees, and lowest ever known, 3 degrees above. The average mean rainfall is 45 inches, and this is distributed throughout the year, there being no rainy season nor drought.

After all, the proof of the pudding is the eating, and a visit to this favored spot, or correspondence with a resident, will produce evidence of benefit to tuberculous patients sufficient to stagger the credulity of most physicians.

The village is a settlement of Northern people entirely, and there are good hotel accommodations.

In conclusion, with the learned editor of the "New England Medical Monthly," I am satisfied that Southern Pines offers more hope to the consumptive than any other place with which I am acquainted or have read about.

THE DISINFECTION OF MEDICAL FEES.

Professor Demosthenes, of Bucharest, according to the Bulletin Medical, calls attention to the danger of the transmission of contagion by fees received from patients suffering from contagious diseases. He contends that such money ought to be kept in a pickpocket of metal or impermeable cloth, which can be sterilized by the flame or by boiling, and that the physician ought to disinfect his hands before leaving the sick-room. This last rule is certainly one which ought to be followed, whether the physician receives money or not. During the present hard times there is little danger, at least in this country, from the transmission of contagious diseases by physicians' fees, as these fees are not paid in most instances till months after the patient has recovered. The danger would appear to be far greater to the butcher, grocer, etc., who are paid much more promptly than the physician.—Boston Medical and Surg. Journal.

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FUNCTIONS OF BOARDS OF HEALTH.

Boards of Health have come to occupy an important place in the governments of all our large, important cities.

From year to year, in obedience to the demands of modern sanitation and hygienic progress, their powers have been extended; but, now and again, we read of the local officials reducing the appropriations for their support; thus seeming to question the expediency or necessity of their existence at all; or at any rate, restricting their functions within restricted limits.

This we cannot wonder at, however, when we find our profession anything but unified on this question of vesting unlimited authority in matters concerning the public health, in any health board that may arrogate to itself a claim to monopoly in scientific knowledge, and often interfere with the rights

of the family physician. Recent events would seem to point to the climax of absurdity, which some of our supersaturated germ theorists would lead us to, if we don't move promptly and put on the curb before we are made the laughing stock of all intelligent communities. Apropos to the above remarks comes a telling leader in our worthy contemporary, the "Medical and Surgical Reporter," entitled: "Sensational Nonsense not Sanitary Science."

"Occasionally medical scientists, by enthusiastically accepting some alluring but specious proposition prematurely, have allowed themselves to be swept into practices unfortunate for their science and disastrous to their patients. The tuberculin treatment for tuberculosis is an illustration of such an error.

"Much more common are exhibitions of what may be termed burlesque science—irrational and illogical deductions from established scientific premises. Preventive medicine seems to afford peculiar opportunities for these pantomimic displays. It may be questioned whether medicine eventually is not benefited rather than embarrassed by these performances of science bouffe. Certain it is that they who in the name of science commit such folly and seek notoriety as public alarmists are oblivious to the truth of that homely saying of Abraham Lincoln, 'One may be able to fool some people all the time and all people some of the time; but one cannot fool all the people all the time.' The public press, which is the agent most frequently employed in circulating these pseudo-scientific dicta, is at the same time the factor most potent in exploiting their fallacies.

"Perhaps there is nothing to which an American community is more sensitive, or which receives more the scrutiny of individuals, than those regulations of law or ordinance enforced as special protection against possible or imminent danger to the common health. The public sentiment which supports these regulations is the result of progressive education, and in this development the press is the most important fac-

tor. In matters of public health the lay press relies for proper direction upon current medical literature, and is prone to amplify and exaggerate whatever information is there obtained. Hence it behooves medical bodies and medical journals to be circumspect in their utterances and to confine themselves to unadorned facts in their deliverances.

"Of late we have experienced an endemic of calamity howls which would have been regarded jokes but for the sources whence they arose. For instance, the following resolution, recently adopted by a medical society, certainly displays much more of anxiety to attract attention by making a great noise than of good professional knowledge or practical common-sense. The resolution recommends that 'the Board of Education abolish the common drinking-cup in the public schools, the Park Commission do away with drinking-cups at spring, and railroad companies remove the common drinking-cups from all stations and trains, to prevent risk of contamination and teach the public to adopt and use individual drinking cups.'

"This is a not unfair specimen of the sensational nonsense sometimes offered the public as sanitary science. It is a result of the thoroughly unscientific methods and egregious incompetency of those precocious ones who receive, without comprehending fully, an hypothesis probable in the abstract, and promulgate it as a general law positive in the concrete. There may be some extension in the case of our friends whose conception of the supreme spirit of medicine is a diluted Dynamis, and whose scientific faith predicates infinite potency of the infinitesimal. But it is not science in the ordinary acceptation of that much-abused word.

"We do not feel called to defend the rust-corrupted tin cup of the public school, nor the galvanized solder ladle at the park fountain, nor the battered leaden antiques which adorn some railroad stations and cars, but these are offenses against public decency rather than menaces to public health. To abolish articles so abso-

lutely essential to public convenience and comfort may be sound theoretically. When reduced to practice, however, factors must be taken into consideration which modify the theorem to such an extent as to render it impracticable. These modifying factors will determine the verdict of the public in its estimate of the utility of the proposition.

"That dangers may exist in the water supplied there can be no reasonable doubt. But the resolution does not contemplate dealing with the water. There appears to be no authentic record of the probable transmission of infection by the utensils mentioned independent of a contaminated water supply. Nor are we aware of an instance where in the researches of the bacteriological laboratory there has been discovered and identified any infective germs obtained from one of these public drinking-cups. Before advocating a measure which would produce an enormous amount of public inconvenience, discomfort and suffering, it would be well for astute aspirants to popular scientific repute to establish (1) the probabilities of these cups becoming infected in the course of their ordinary use; (2) the probabilities of retaining infection despite the disinfection by constant flushings with water and by the exposure to the atmosphere; (3) the probabilities of users becoming infected under the necessary conditions demonstrated by present knowledge of infectious processes. When the risks can be shown to have more than a theoretical existence and a present danger can be urged against undeniable merits, science will be found ready to suggest a rational remedy."

THE VALUE OF ADVERTISING.

William Dean Howells, the celebrated novelist, tells a story which he says has influenced his whole life and we repeat it herewith with the encomium that it is decidedly the most sensible story which, in our opinion, has ever emanated from its author's pen.

The hero of the story was a young Dane, who was going up among the fiords to seek his fortune in the northern fisheries. Many times when he was sailing through the fiords he found himself locked in by mountain walls, with no apparent outlet. It seemed, if he kept on, he would sail directly into the rocks, but each time as he proceeded he found some unexpected channel, which allowed him to go safely on his way. Sometimes it seems that advertising is wasted, that there is no possible way that it will turn out profitably, but if the advertiser will keep right on he will find clear business channels opening and in the end will make a safe landing in the harbor of success.

A little advertising may be unprofitable when a great deal would pay handsomely. Short time advertising seldom pays. This is the reason that ads. in the many ephemeral "schemes" that come to every business man are never profitable. It is continuous, consistent, courageous, intelligent advertising in the best journals that always and infallibly brings good returns.

Persistence in advertising pays. It's the man who gets scared and quits who loses the money.

SOMATOSE CHOCOLATE.

We have received from the house of William H. Schieffelin & Co., New York, an elegant preparation known as Somatose Chocolate. It consists of 10 per cent. somatose, and presents all the advantages of a concentrated albumose, or the nourishing elements of meat, together with its nutrient salts, and the stimulating effects of chocolate.

The preparation comes in cakes similar to sweetened chocolate, and may be used as a drink or as a food. It may be prepared for a beverage in a similar manner to ordinary cocoa.

Somatose is recommended in all wasting diseases as an easily digestible, readily assimilable and palatable preparation. It occurs as a powder, tasteless and odorless, read-

ily dissolving in ordinary fluids. It does not overtax the stomach and is taken up by the system, producing gain in flesh and strength.

The chocolate combination is a delightful addition and forms an excellent nourishing beverage for daily use.

As "the proof of the pudding is in the eating," we would advise physicians to try this preparation and be convinced themselves of its qualities.

Book Reviews.

SEXUAL NEURASTHENIA—ITS HYGIENE, CAUSES, SYMPTOMS AND TREATMENT—WITH A CHAPTER ON DIET FOR THE NERVOUS. By George M. Beard, A. M., M. D., and A. D. Rockwell, A. M., M. D. Published by E. B. Treat. Price, \$2.75.

A work of this kind supplies information not generally given sufficient notice in medical literature.

Nerve exhaustion in the sexual neurasthenic is apt to be attributed to other causes and the underlying conditions which bring about functional disorders are overlooked. This book deals with the relation of those conditions arising from loss of nerve force dependent upon sexual excesses. The causation, as stated in the introductory chapter, of sexual neurasthenia, as of all other clinical varieties and of modern nerve sensitiveness in general, is not single or simple, but complex; all familiar excitants are secondary to the one great predisposing cause—civilization.

The work further deals with the treatment of sexual neurasthenia and regards constitutional treatment of more value than local.

The work is excellently bound, and should be in the library of every general practitioner who attempts to treat these cases.

HYDRIODIC ACID AND HYPOPHOSPHITES. By R. W. Gardner, N. Y.

(Twelfth Edition. Free on Application.)

This book contains a great deal of valuable information on diseases dependent on impaired nutrition. It has been compiled from letters, articles from medical journals and other data, including extracts from Churchill's Theory and Treatment of Pulmonary Consumption.

It should be a well-known fact that the treatment of tuberculosis, by the hypophosphites supplies a want to the inorganic chemistry of the blood that no other agent and that hydriodic acid as an alterative combines the therapeutic effect of iodine and hydrogen.

It will pay any physician to apply for this book at once.

BOOKS AND PAMPHLETS RECEIVED.

CATALOGUE AND CONSTITUTION OF HARVARD ALUMNI ASSOCIATION.

THE RELATION OF STATIC DISTURBANCES OF THE ABDOMINAL VISCERA TO DISPLACEMENTS OF THE PELVIC ORGANS. By J. H. Kellogg, M. D., Battle Creek, Mich.

PREVENTION AND TREATMENT OF CHOLERA. By Elmer Lee, A. M., M. D., Ph. B. Reprinted from the Chicago Clinical Review for April, 1893.

THE TREATMENT OF TYPHOID FEVER. By Elmer Lee, A. M., M. D., Ph. B. Reprinted from the Chicago Medical Recorder for April, 1894.

SURGICAL THERAPY OF RECTAL CANCER. By Thomas H. Manley, M. D. Reprint from Merck's Bulletin, February, 1893.

THE PATHOLOGY, SYMPTOMATOLOGY AND TREATMENT OF HEMORRHOIDS, SIMPLE AND COMPLICATED. By Thomas H. Manley, M. D. Reprint from St. Louis Medical Review, October 7, 1893.

Philosophy.

DR. HENRY BURCHARD, Philadelphia.
COLLABORATOR.

FEMALES UNATTACHED AND OTHERWISE.

Absolutely bewildering are the varied phases of femininity. It is not to be wondered at that woman has gained the reputation of being fickle, although in many, very many, cases the accusation is a most unjust one. It is her varying moods and often unaccountable actions that gain for her the undesirable name.

There are as many types of womanhood as there are women in the world, for, look the universe over, no two, however much they seem alike, but have strongly differing characteristics which give decided individuality to each. And is not this a good thing? being otherwise would not things be monotonous? Nowadays one is obliged to keep constantly on the alert in order to meet half-way the dozen or more phases that most women will display in an hour's intercourse with them. And yet, is it not, perhaps, just that variety wherein lies the charm of the sex's personality?

Woman is bewildering, tantalizing, soothing, vexing, craving forgiveness, and weakness itself, all in a few minutes. No wonder men give up trying to find explanation for it all, and at last accept them as they are; as charming enigmas, whom they cannot, and would not if they could, get along without.

Still this description does not apply to all of the gender; no, indeed, far from it. Many would consider it a positive insult to be so classed; at least they say they would. But, *entre nous*, would they?

The nineteenth century woman is a most complex affair, and really it is to be doubted if one among the number knows what it is she does want. But breathe that not in Gath! To begin with, she wants to

forge ahead, and keep pace with the men in all matters of the day, pertaining alike to things secular and religious. She wants a voice in politics, on the rostrum, in the press; in short she wants a voice everywhere; except, perhaps, in the home; and with this type of woman the home gets along, as a general rule, a good deal better without than with her.

This class of women should belong to the band of L. F.'s (independent females). They have no right to make a home for a man, and be mothers of children, if they mean to desert that sacred calling to enter into a wider field of usefulness, as they call it. What can give wider range, or grander opportunities, than the position of wife and mother?

The helping of a husband with well-thought-over advice, or with loving sympathy in time of troubles, or in a judicious and well-timed curtailment of expenses when money difficulties are about? He is a wise husband who comes to his wife when difficulties environ him. Many an innocent woman is blamed for ruin that has come where she has known absolutely nothing of the cause of it.

Some men are too cowardly to tell their wives of impending trouble; others, from a false sense of kindness, withhold the knowledge. Very many think their wives absolutely incapable of comprehending anything whatever connected with business. And so, wealth, happiness, home are sacrificed to false ideas.

The opportunities of a mother are the most responsible and the most beautiful that can come into a woman's life, for with her influence and tender womanly love lies the moulding of the lives and characters of the men and women who are to rule the next generation.

The unattached females and young girls of the present day are a rather remarkable study. The former may be taken from the ages of 25 to 10 years later. Such are no longer young girls, neither are they looked upon exactly as settled-down women—the unmarried ones, of course, are meant. They still feel young, and

most of them look so. They are just as capable, and as eager, to enjoy a good home as when 18. But the girls of the latter age consider it rather a trial, feel just a little aggrieved to have the U. F.'s around and claiming a part of their fun; while the U. F.'s, poor girls! do not seem to belong quite anywhere. Few of them find the niche they belong in before they are 40, unless they marry in the meantime. But by the time they reach this age most of them have found a groove. Some think the hurly-burly of the outside world is where they belong. Some find enjoyment and variety in club life. Still others turn philanthropists. A good many find their vocation in the nurseries and by the firesides of their more attractive sisters, and there they live out a quietly contented, colorless existence—darning the children's stockings, reading to or amusing them when mamma is otherwise engaged; and looking after their welfare generally.

It is just such women as these last who fill up the chinks and round out other lives. They are seldom appreciated by anyone, poor things! although, perhaps, they do not seek or require sympathy. All honor to them! may they always find a warm corner in somebody's heart and home!

But there is still another class of women who may be numbered among the unattached. These are the ones who have cultivated their minds a degree beyond the rest of their kind. They have cared for the reading of good books, the study of art and the beauties of nature. They have found interest and enjoyment in the study of their fellows. These women, whatever their station in life, have a never-failing fund of wealth to fall back upon when the ordinary sources fail them. They are never lonely, seldom bored, and can always find amusement within themselves—one of the greatest blessings that a human being can possess.

A few, having exceptional talents, make a name and a place for themselves in the world of art or letters; but it is to be doubted if these are

as happy in the glare of light as in the twilight of obscurity.

And yet, if one feel she can excel in any special direction, be it ever so little, is it not wise and desirable to add that little to the general good? It is after the manner of thus excelling that the world has progressed. Each one adds his or her mite, and so, little by little, the whole has been reared.

But it is little by little the world is meeting with sad and irreparable loss in a gradual dying out of its womanly women and the substitution in her place of the aggressive and boisterous female of the nineteenth century.

The past hundred years has seen no more startling nor wonderful event than the change of position by its women. Is the change for the better? There used to be something almost sacred about the name of a good woman that appealed to the chivalrous in every man's nature and made the idea of protection a very sweet one to both. But now, how changed it all is!

"NORWOLD."

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

A QUESTION OF ENTERPRISE.

To the average physician engaged in a general family practice the word electricity usually represents a vague abstraction to be considered entirely apart from the familiar *materia medica*. If he is a progressive man he may, however, own an apparatus ordered from an illustrated catalogue as follows: "Family Battery. Price, including Cords and Handles, \$10. (Discount to physicians, 25 per cent). This battery is made in solid oak or mahogany case, and the workmanship of this, as well as of all our batteries is of the highest order. For durability and cheapness it has no superior." Backed by the consciousness of this possession he can assure certain patients that they had better

"try a little electricity," as he thinks it would do them good; or in other cases where meddlesome neighbors have recommended this agent and even offered to loan the family their own batteries for use *ad lib.* the attending physician can at once frown down such unwelcome interference by asserting that he "has a battery of his own, and that if he had deemed electricity suited to this case he would have tried it himself; but anyone can see that this patient has too much electricity in her already, and that the application of more, in her nervous state, would do her more harm than good."

The family thank heaven for their narrow escape, and the doctor congratulates himself upon his wisdom.

Probably at present the idea that large numbers of people have "too much electricity" in them is a merciful dispensation of Providence designed to save them from the attentions of bungling manipulators of "solid oak \$10 batteries of the highest order."

That this remains true reflects seriously upon the medical profession. It is the physician's duty to heal, relieve, repair; to mitigate suffering and to promote health. It is not only obligatory upon him to use the best means known to him to combat disease, but it is his duty also to acquire knowledge of every better means which progressive science may from time to time present to the healing resources of the world.

As a principle applied strictly to drugs or surgery no one will dispute this. It also may now be held to include another great agent, too long neglected in medicine, *viz.*, food. The physician who does not now recognize the importance of nutrition to his patient cannot deserve confidence, and must be mentally unsound.

From nutrition to the proper appreciation of medical electricity ought to be but a step.

Yet the number of general practitioners who have taken this step of progress is exceedingly few. This is discreditable to the profession, and unjust to humanity, whose right it is to assume that medical advice

is based upon adequate knowledge of the best measures to employ in the perplexing problems of disease. Electro-therapy is too far advanced towards the high place it is destined to hold, and has already too splendid a record of achievement to be complacently ignored or regarded with skeptical indifference by those who wish to avoid being left in the rear by their more enterprising competitors in business.

The alert physician who has secured a good electrical outfit and learned how to use it successfully has as great an advantage over the physician who has neglected this as the practical surgeon has over the man who simply reads about operations in books. The one can give his patient the benefit of increased resources, and wider experience; can apply means which may cure when previous measures have failed; can gratify his patients, can win others, increase his practice, enlarge his income.

This view of the matter spreads rather slowly, however. Not long ago one of our leading neurologists publicly stated that two or three in a hundred would be a liberal estimate of the number of physicians in the United States who actually know how to handle electricity in the treatment of patients. This is an understatement of the case. If the number of physicians is accurately estimated at about 100,000, this would assume that between 200 and 300 of them were skilled in the use of medical electricity. That this may be an exaggeration is apparent from the fact that the entire membership of the American Electro-Therapeutic Association does not much exceed 100.

One may go to large medical libraries and glance through files of a hundred or more medical journals published in all parts of the country, and only at rare intervals will he find any article on electro-therapeutics. Considering the amount of money invested in the manufacture and sale to physicians of electro-medical and surgical appliances—a sufficient voucher that substantial interest in this work exists in the medi-

cal profession—the current literature on this subject is extraordinarily small.

If we seek for an explanation we can hardly find in it any theory that the subject lacks either merit or special interest, for medical journals are filled with an immense variety of matter, some of which deals with already exploded fads and much of which can hardly be interesting to anybody. It is, however, one of the peculiarities of human nature that merit often lags behind mediocrity in the struggle for recognition.

The law of supply and demand may be an admirable regulator of production after the demand is created, but many useful articles would never have been made at all if the supply had first depended on demand. Take the sewing machine, as an instance. No special request was made to Elias Howe to invent it, nor did manufacturers rapidly turn out a million machines in response to orders from a million households. On the contrary, men who invested the capital to develop Howe's invention sent out agents everywhere to sell the goods they made before any demand had sprung into existence. These agents advertised their wares, demonstrated their value, urged them before the public, coaxed farmers and merchants to buy them for their wives, and then taught the wives how to use them. Canvassers invaded every community. They out-talked the most obdurate customer. Scarcely anyone could refuse to buy, and if cash was lacking a swap, or trade or a year, or even two years' credit was offered. It was a poor salesman who would take no for an answer when he had once started to sell a man a machine. Now the sewing machine was a good thing, yet it took an immense effort, a long time and an enormous outlay of money to introduce it into general use. It was opposed for various reasons. It cost a good deal, and required special instruction to operate; and if it had waited for its market till people came forward and bought it voluntarily the number now in use would be limited.

Electrical batteries stand on the same footing as other mechanical inventions. Their introduction into general use is a matter of business enterprise.

Coming nearer home we find the same rule to apply to almost every drug in active use. Did a resistless, spontaneous, tireless demand for cod liver oil by physicians everywhere, all over the world, induce reluctant capitalists to provide the desired supply?

The firm who spent \$300,000 a year in advertising and pushing the sale of a single emulsion would claim that the demand is only the slow growth of years of persistent advertising, and that if they relaxed their efforts for a single year their demand would fall off amazingly.

Take the case of the multitude of malt preparations, infant foods, nerve tonics, kidney cures, pills, etc. Do any of our enterprising chemists, pharmacists and pill makers sit down and wait for business to come in before they make up their goods? No, they drum up trade in every possible way. Their canvassers tax the physicians' courtesy by their demands upon his time; their circulars fill his mail, their calendars, souvenirs and samples litter upon his desk.

He probably will prescribe the good things that are brought to his notice and the good things that are not brought to his notice he probably won't.

Electricity, as a therapeutic agent, is a good thing—theoretically! Practically, very much of its value depends upon the apparatus that furnishes it, and as the great majority of physicians have no battery at all its merits are a dead letter to them.

What is going to awaken interest in electro-therapeutics, and create a demand for improved electrical apparatus? Manifestly business enterprise! Goods must seek their market. Markets rarely advertise for goods.

Electrical supplies conform entirely to the general rules of trade, and manifestly the future development and spread of electro-therapeutics

is in the hands of producers of electrical supplies.

From a scientific and professional point of view this may not seem inspiring, but it is true.

Those who are enthusiasts in the work and wish to inspire everyone with their own appreciation of the value of electricity may urge that physicians ought to wake up and buy batteries and learn how to use them and employ this wonderful agent to its fullest capacity; but this process is extremely slow in operation and after 30 or 40 years chiefly given over to this kind of development the result is two electro-therapeutic societies with a membership of a couple of hundred or less, one electro-therapeutic journal published at intervals of three months and business enough to barely sustain a few struggling manufacturers.

Small beginnings are characteristic of healthy enterprises; steam engines, coal-burning stoves, typewriters, bicycles, were all born of very small beginnings, but each has been developed with great energy in the face of well-nigh insurmountable obstacles. After slumbers of a century commercial electricity was stirred into a most wonderful wakefulness about 15 years ago, and its progress since then has been marvelous, as everyone knows. Medical electricity on the contrary has almost stood still. No medical Edison has appeared to revolutionize the apparatus, and no combinations of capital have tirelessly cultivated, expanded and conquered the market.

That 100,000 physicians constitute a good-sized market is evident enough, but they are no more likely to all proselyte themselves into becoming electro-therapeutists than they are to agree upon the best treatment of typhoid fever. Proselyting influences, such as improved and moderate priced apparatus, expert salesmen, reports of clinical cases, illustrated catalogues, reliable text-books, etc., must reach the rank and file of the profession, awaken interest, educate special knowledge, stimulate competition, demonstrate results, overcome ignorance, apathy and pleas of poverty before prejudice

or timidity can be conquered and physicians induced to add an indispensable weapon to their familiar, monotonous routine. It matters not that this weapon can be made by reasonable skill the most valuable single curative agent except food, they must none the less be besieged and convinced before they will spend the money or take the trouble to add it to their armamentarium.

S. H. MONELL,
44 West Forty-sixth street, N. Y.

Medicine.

DR. E. W. BING, Chester, Pa.
COLLABORATOR.

PLEURAL EFFUSION.

Dr. Cassarories (Roumania) has used and highly recommends the application of guaiacol in pleural effusions. He uses this combination:

	Grammes.
R—Guaiacol	3
Tr. iodini .....	.20
Glycerini, aa .....	.20

The antithermic action commences at the end of about four hours. The effusion is absorbed after some few daily applications, and does away with the dangers of thoracentesis. He was also successful in the anasarca, by using the application over the loins. The test for the purity of guaiacol is its perfect solubility in any proportion of glycerine. The crystalized guaiacol is to be preferred.—Prog. Med.

NIGHT SWEATS IN PHTHISIS.

R—Ext. ergot	3 grams.
Alcohol, dil	5 grams.
Glycerine	5 grams.
Dist. water	5 grams.

Inject hypodermically at night.—Goldendach.

TREATMENT OF RHEUMATISM.

R—Antirhumatine	0 gr. 10 cg.
Excipient	q. s.
Make one pill. Take six to ten per day.	

Antirhumatine is a combination of salicylate soda and methyll-blue. It occurs in prismatic crystals of a blue color, very soluble in water

and alcohol. It colors the urine blue or green.

R—Phenacetine.	5 grs.
Lanoline .....	.20 grs.
Ung. Apply to the joints.	

Non-parasitic, genito-crural pruritus.

1 R—Solution of chloral.	
2 R—Menthol .....	.4 grams.
Acetic acid .....	.140 grams.
Alcohol .....	.30 grams.
Water .....	.150 grams.
Sig. Apply to parts—Prog. Med.	

TREATMENT OF BURNS.

R—Salicylic acid	50 c grams.
Oxide zinc .....	.10 grams.
Starch .....	.40 grams.
R—Boric acid	5 grams.
Oxide zinc .....	.10 grams.
Vaseline .....	.35 grams.
R—Aristol .....	.10 grams.
Ol. olive .....	.20 grams.
Lanoline ....	.40 grams.

ACUTE CATARRH.

R—Acid sulphanic C. P.	10 grams.
Soda bicarb .....	.8—50 grams.
Aquae distil .....	.200—grams.
Ft. Solution.	
Give 40 to 80 grms. a day in one or two doses.	

EFFECTS OF SEA AIR.

Lindemann gives various observations made both during a long stay at Heligoland and in the course of an ocean voyage. The most marked effect as observed in individuals accustomed to town or country air is produced on the circulation, which tested by the sphygmograph showed a slower pulse, as also higher and steeper curves. This as well as the deeper and longer inspirations the author ascribes to the stimulating properties possessed by sea air, on account of its mechanical admixture with salt and the greater force of the wind; the skin temperature is also more permanently reduced by sea than land air. As regards sea sickness, its effects are also to retard the pulse, but at the same time very much to lower its force. However, these effects rapidly pass off, and the author's sphygmographic charts show the condition of the pulse in a healthy individual before embarking, during an attack of sea sickness and afterwards, as also the continued improvement for some weeks after landing.—Therap. Monatshefte, November, 1894.

Surgery.

DR. T. H. MANLEY, New York.

COLLABORATOR.

THE JANET METHOD IN URETHRITIS.

The pathogenesis of the gonococcus has been fully established, but as yet all specific remedies recommended for gonorrhea have proved futile. The best treatment now, as before, is the prophylactic. Ricord's observation, "Une chaude pisse commence, Dieu le sait, quand elle finira," is equally applicable at the present day, notwithstanding the progress made in the pathology of gonorrhea. At the genito-urinary clinic of Posner a routine treatment for gonorrhea is the Janet method, which consists of irrigating the anterior urethra (in anterior urethritis) with many liters of a solution of permanganate of potash (1 to 100). The strength of the solution is gradually increased until a strength of 1 to 1000 is reached. The solution is preferably warmed before being introduced. A simple contrivance enables the solution to escape continually after it has fully passed through the course of the anterior urethra. In the beginning it is advisable to irrigate twice daily, and as the strength of the solution is increased, once daily is considered sufficient. Janet's has yielded the better results at this clinic than all other methods of treatment. In urethritis posterior a catheter is carried beyond the compressor urethra, so that the solution may reach the posterior urethra.—Occidental Med. Times.

TECHNIQUE OF MAKING URETHRAL INJECTIONS.

Guiard (Annales des Maladies des Organes Genito-Urinaire) gives the results of his investigations concerning the urethra and its medication. The capacity of the urethra had been stated by Jarnin and Leprevost to be from 5 to 8 grams, therefore it was held that a urethral syringe should not hold more than

5 to 6 grams, equal to about 1 1-2 drams. Later it was shown that posterior urethritis, particularly late in the disease, was far more frequent than formerly supposed. The author by experimenting on the living subject found that the urethra would always hold 8 to 10 grams (2 to 2 1-2 fluid drams), and more often 12 to 15 grams, and sometimes 16 to 17. As the patient could tell when the sphincter was forced, this was avoided. These deep injections are only called for when definite symptoms have already demonstrated that the posterior region of the urethra is already affected.

In order to administer these deep injections the author uses a syringe of 20 grams (5 drams) capacity. When it is desired to overcome the sphincter gentle pressure is made, when the liquid will enter. In an experience of 10 years he has never had any accidents, and only encountered one case in which the sphincter would not relax. It is better to give the injections when the patient is lying down than when he is standing up. The requirements of an effective injection is that it shall reach all the diseased parts. To do this a syringe of 20 grams (5 fluid drams) capacity should be used, and the injection of its entire contents, if carefully done, is easy and causes no inconvenience.—Periscope.

TAXING BETTING FOR THE BENEFIT OF HOSPITALS.

The French Government compels a certain proportion of the money made by betting on horse races to be paid into the treasury for the benefit of the public charities. The hospitals last year received about \$50,000 from this source.

Let it be remembered that tobacco, unlike alcohol, does not excite the sexual passions, but subdues them; that under its influence the tumultuousness of our feelings is quieted, and our best, our most placid, and most harmonious thoughts return.—William H. Pearce, M. D.—Plymouth (England) Med. Press. Dec. 19, 1894.

Miscellany.

DIAGNOSIS OF DIPHTHERIA.

Special Announcement from the Laboratory of Bacteriology of the Philadelphia Polyclinic.

As the early diagnosis of diphtheria from other pseudo-membranous affections of the throat has always been a matter of difficulty, and in some cases of absolute impossibility, the consensus of opinion is that it can be made with certainty only by a bacteriologic demonstration of the presence or absence of the Klebs-Loeffler bacillus. Furthermore, the question of the association of other pathogenic and of pyogenic microbes with the Klebs-Loeffler bacillus is of importance in prognosis. In view also of the introduction of the blood serum therapy an early and absolute diagnosis is imperative in testing the efficacy of such treatment.

The Laboratory of Bacteriology of the Philadelphia Polyclinic is ready to undertake this examination and to report to physicians the bacteriologic diagnosis of suspected cases. Sterilized swabs and blood serum tubes, together with instructions for the method of procedure, can be obtained at the laboratory or from Mr. W. S. Leffman, in the Faculty's office. The results of the examination will be reported within 24 hours from the time of the return of the tubes. This service is gratuitous.

OYSTERS AND TYPHOID FEVER.

At a meeting of the State Fish and Game Commission held in Albany January 4 the State Oyster Inspector presented a report in which he stated that he had fully investigated the subject of the possibility of oysters becoming contaminated with typhoid fever germs while undergoing the "floating process," and that he had found but one stream, situated on Staten Island, where such danger existed. He was ordered by the Commissioners to demand a discontinuance of the use of this stream.

THE FAILURE OF THE ERYSIPELAS TOXINS.

"Every delay is hateful, but it gives wisdom."—Publius Syrus.

There is no longer much question of the entire failure of the toxin injections, as a cure for sarcomata and malignant growths. During the last six months the alleged remedy has been faithfully tried by many surgeons, but so far not a single well authenticated case of recovery has been reported, so far as our reading has extended; and the personal experience of surgeons of our acquaintance with whom we have conversed, demonstrates that in all cases in which they tried the erysipelas toxin the result was no improvement.

We can readily understand and sympathize with the great desire to rescue from impending death sufferers from an incurable disease, but science demands that its truths shall be positively demonstrated before being accepted. The medical profession, for centuries conservative in acceptance of new doctrines, has been startled out of its usual practice by the brilliant discoveries of bacteriology, and it now seems as if any assertion, no matter how absurd, needs only some strong voice or lucid pen to make the profession swallow it greedily. It is the age of the sensation-monger, and the seeker after notoriety may enjoy a temporary celebrity by a very easy process. He has only to announce the sure cure of some hitherto incurable disease by some foreign chemic product, or microbiomystery and the thing is done. The celebrity may be short-lived and suffering humanity deluded by false hopes, but the story was a pleasant one while it lasted.—*Journal of Am. Med. Ass'n.*

THE RELATIONS OF ANTITOXIN TO THE COMPLICATIONS OF DIPHTHERIA.

In No. 51 of the *Deutsche Med. Wochenschrift*, Treymann describes a case of acute hemorrhagic nephritis occurring in a case of diphtheria treated by Behring's antitoxin. The attack, which occurred after an injection given on account of a slight

recrudescence of the disease after the worst was over, leads Treyman to conclude, that inasmuch as ordinarily the nephritis of diphtheria occurs at the height of the disease, this attack must have been due to the antitoxin treatment. In order to disarm the unjust criticism which would with certainty be made of the treatment on account of this case Schwalbe publishes in the same journal an account of an acute hemorrhagic nephritis occurring (also during convalescence) in a case of diphtheria not treated by antitoxin. He (Schwalbe) remarks that in the nephritis of diphtheria, in contradistinction to that of scarlet fever, blood is seldom present in the urine, a fact which would be almost certain to result in a hemorrhagic nephritis being ascribed to the new remedy. He, therefore, very justly concludes that he ought to publish his case in which the disease occurred independently of serum treatment!—*Boston Medical and Surgical Journal*.

BICHLORIDE HARMFUL.

Dr. Joseph E. Winters said it required bichloride of strength of 1 to 1000 to kill the Loeffler bacilli, with exposure of two hours, which meant that it was an impracticable antiseptic in diphtheria. Moreover, it was positively harmful even in weak solutions, 1 to 4000 causing irritation, and at times producing constitutional symptoms. Calomel fumigation was objectionable on the same grounds, while the benefits attributable to it in the way of stimulated secretions and ease of breathing could be much better obtained from inhalation of sulphurous acid vapor.—*N. Y. Med. Record*.

LADY FOOTBALL.

Woman seems now to have a task before her in which we fear greatly she will fail. Report goes that female football teams will shortly contest in public, and the problem is now, on the one hand, to make the performance graceful, and, on the other, not to spoil the game. Those

who have witnessed the modern developments of that noble sport will probably doubt whether even women will be able to harmonize such conflicting aims. Into this question we will not enter. Whether the real game played by women is a graceful or a disgraceful sight Mrs. Grundy must decide, and whether the game played in a lady-like manner is worth looking at will doubtless soon be settled by the polite frequenters of the football field, who, we may be sure, will not be backward in expressing their opinion. In the meantime we enter our protest against the whole performance.—*British Medical Journal*.

THE DOSE OF THE DIPHTHERIA ANTITOXIN.

Roux states that his practice has been to give 20 c. c. (over 5 drachms) of serum to each little patient on admission, and the same quantity, or half the same quantity, according to the severity of the case, 24 hours afterward; and if the pulse and temperature still remain high the same dose is again given. He adds that the smallest quantity he has used has been over 5 drachms, and the largest quantity about 4 ounces; in one exceptional case he gave as much as between 6 or 7 ounces! Practitioners should remember these facts.

SUIT AGAINST THE BRITISH MEDICAL JOURNAL.

It is said that Dr. Stretch Dowse is about to enter an action for slander against the *British Medical Journal*, and that he will claim 5000 pounds as damages. In the sensational article on massage recently published in the *British Medical Journal* Dr. Dowse's name was mentioned as one of those who give certificates for proficiency in massage.

ANNOUNCEMENT.

A valuable contribution on "Unusual Types of Chronic Abdominal Hernia," illustrated, by Dr. T. H. Manley, of New York, will shortly appear in this journal.—Ed.

The Times and Register.

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WHOLE No. 855.

Original.

A PRACTICAL THEORY AND TREATMENT OF PULMON- ARY TUBERCULOSIS.

BY FRANK S. PARSONS, M. D.,
PHILADELPHIA, PA.

Editor of The Times and Register.

(Continued from Last Number).

TREATMENT.

The recognition of lymphatic stasis as the primal cause of tuberculosis explains the failure to successfully combat the disease with antiseptics. Germs will develop in a favorable medium, and it is impossible to render the medium unfavorable in tuberculosis without removal of the cause of its presence: i. e., lymphatic stasis. We know the effects of urea on the human system when it is retained in the blood by obstruction in a diseased kidney. Why, then, should the same not hold true in relation to waste elements from other parts of the body? Relief and cure coming by restoration of eliminative function are proportioned by the completeness of the latter. Microorganisms depart when the medium in which they thrive is eliminated. The only way to sterilize the germ-ground of tuberculosis is by removing the waste: i. e., increase oxygen and the function of oxidation by adding elements to the blood which have a natural affinity for oxygen in the organization of healthy tissue. In accomplishing this the actual waste elements are lessened, giving the excreting organs less work to do, thereby allowing nature a chance to absorb excess and repair damage.

As most patients come to us in a more or less advanced stage of tuberculosis, generally after lesions have developed which are demonstra-

ble by physical examination, we have lost the most promising of the periods for inaugurating successful treatment. If, however, the case has not advanced to a point where the lesions which are present may not of themselves prove destructive to life, there is always hope that, with proper care and treatment, recovery may ensue.

In a paper like the present it is difficult to map out the proper treatment for all cases of phthisis. If there is a disease in the category of chronic affections which in its treatment requires wisdom, skill and judgment, that disease is pulmonary tuberculosis.

The first thing to do is to study the individual case. Temperament, environment and the circumstances of a patient have much to do with success in treatment. If a different climate is required and the financial means to carry out such requirement is lacking, the chances are so much less in a patient's favor. (This is not saying that every patient needs change of abode.)

In nearly every case, no matter at what stage of the disease, it is hopeless to attempt medication without first preparing the stomach and intestines to favor absorption of the remedies used. These organs, where phthisis is present, are usually in a state of chronic catarrhal inflammation, with more or less thickening of the mucous membrane, thereby rendering digestion and absorption inefficient.

To begin with, it is found of advantage to insert a stomach tube and thoroughly wash out that organ, teaching the patient the art of performing the feat himself. The solution used for this lavage should be a one to 16 dilution of Marchand's hydrozone in warm water. I prefer the hydrozone to the peroxide of hy-

drogen, because it is double the strength of the latter * and is more constant in its therapeutic qualities. The solution should be allowed to remain for a few minutes in the stomach and then be syphoned out through the tube.

Peroxide of hydrogen or hydrozone acts in two ways on the mucous membrane of a stomach chronically inflamed. First, it clears the surface of excess of mucus, combining with the pus to form carbon dioxide and nascent oxygen (both gases and easily removed through the tube); second, the oxygen of the preparation acts directly and favorably in stimulating the mucous membrane and underlying glands, thereby favoring the circulation of blood and the performance of function. The good results of lavage of the stomach will be apparent in a short time by an increasing appetite, with better assimilation of food.

Second to this method, for the treatment of catarrh of the stomach in tuberculosis, is internal administration of hydrozone before meals. A dilution of one part hydrozone to 32 of water may be employed in this manner; a glassful of the mixture taken half an hour before meals. If the dilution is too strong the gas generated will be distressing to the patient. Glycozone (c. p. glycerine treated to 15 times its own volume of ozone) may be used together with the hydrozone as a curative agent.

The building up of the body by nutritious and well-assimilated food is a primal necessity in treating tuberculosis. The disease being one of impaired nutrition, it is obvious that waste of the body must be reduced to the minimum, in order to prevent further lymphatic stasis from excess of excreta.

On the other hand, the production of tissue-forming elements in the blood must be encouraged. Oxygen is not only to be carried into the tissues, but utilized there. Oxidation is essential to cell life.

The foods necessary to the formation of tissue may be classified as

natural and chemical, or therapeutic (all being essentially chemical).

By the term natural food is here intended such articles of diet as, by process of digestion, are converted into pabulum from the ordinary table supplies, in contra-distinction from chemical food medicinally employed.

To the former class belong animal and vegetable foods and oil; to the latter the hypophosphites, iron, lime and soda.

Discussion of diet and phthisis has been elaborated in so many monographs on the subject of feeding that only such articles will be mentioned here as pertain to the therapy of the disease.

A nitrogenous diet is essential, but care must be taken not to oversupply it, for the reason that a too highly nitrogenized diet (animal food) throws upon the system excess of eliminative work. All nitrogenous matter, which is in excess of that directly applied to growth and reconstruction of the body, undergoes a process of retrograde metamorphosis, taxing the excrementitious organs, and cannot fail to do harm. Where exercise and free circulation can be maintained nitrogenous elements are best borne.

It devolves upon the physician to point out suitable foods to be taken, but it depends upon the system of his patient whether his recommendations can be carried out. It is not good to force any rigid dietetic regulations, founded upon the number of grains of carbon and nitrogen necessary to support life, as may be done in health.

If we consider force production, resulting from different articles of food, it will show that fats, especially cod liver oil and olive oil, lead the list in value. The inability of phthisical persons to eat fat is a serious drawback to its use as a therapeutic food. Where chronic impairment of power exists in the digestive organs it is not always wise to force an article of food against the appetite and desires of the patient. Fatty foods pass the stomach to undergo emulsification, or preparation for absorption, in the small intestines. When fats are fresh, and not taken in ex-

* See "Times and Register," December 15, 1894.

cess, they may pass on without giving any sign of nausea or sickness of the stomach. It is important, therefore, that small doses of oil be given in this disease to begin with, and an increase be made gradually. Olive oil is often better borne by the stomach than cod liver oil. Petroleum oils also have value. The stomach and intestines, being in a catarrhal state, are not calculated to assimilate fats for proper absorption by the lacteals, when given in excess, or even the ordinary dose, often increase the waste to be eliminated by their production of volatile fatty acids and excite derangement.

Having first treated the stomach in the way suggested, we are prepared to apply fats with greater hopes of beneficial results. Regarding the various emulsions of cod liver oil and other oily preparations on the market, it may be said that all pre-emulsified fats have preference to the crude oils, providing they contain enough of the fatty elements for tissue building. Oil treated with hydrogen makes an excellent preparation of value in certain cases.

Next to oil in the dietetic management of tuberculosis is beef. What is necessary in the administration of beef elements to a consumptive is not to get the greatest amount into him, but to have what he does take advantageous to him. Over-charging the blood with tissue-forming elements means overcrowding the eliminative organs, and these are to be freed from an excess of pabulum, as we shall see when speaking of medicinal therapy. It is not necessary to discuss here the different values of beef preparations in detail; but one method of application of this food may be mentioned, because it is found of more worth than the ordinary market products. I refer to blood taken from living animals. This food, representing the elementary vitalizing fluid, is an ideal tissue-builder. In disease we must consider the chemical alterations dependent upon an existing malady, and govern our therapy accordingly. Healthy living blood cells can supply to a wasted part, in union with oxygen, reconstructive material. Such food to be

palatable must be perfectly kept, and adapted for internal use. The best preparation of this kind is represented by bovine, which is simply beef blood, drawn from the living animal and hermetically sealed, acting quite as beneficially as transfusion, and with less danger. Beef extracts have certain values, but are not in the same category with the above.

A new product has recently been brought to the attention of the profession from Germany. It is a concentrated albumose, consisting of the active nourishing elements of meat, called somatose. It is said to contain eight times the strength of beef and to be readily digested, an important point in the treatment of all wasting diseases.

Milk is an article of diet which includes the fats without taxing the digestive powers. It is commonly best borne by being boiled. The addition of soda water (aerated water) will make it more palatable to those phthisical persons who do not like milk. Hot milk is an excellent remedy in paroxysms of coughing, especially during the night, with scanty or thickened expectoration met in the later stages of this disease. In this connection are to be considered the various milk preparations as being of more or less value.

Where there is much fever in pulmonary tuberculosis the carbohydrates are the foods to be most depended upon; they do not call for the excessive eliminative work of the nitrogenous compounds, and are easily assimilated by the digestive organs.

Chemical foods being here considered, those elements which are necessary to replace the inorganic ingredients of the blood may be represented by the hypophosphites, iron, lime and soda.

We have seen why the venous blood of a phthisical person is brighter than normal, inasmuch as there is a loss of oxidizing element (i. e., oxidizable phosphorus) and a carrying over of oxygen in the free state through the capillaries; hence it is necessary to supply this loss to the blood. This subject has been so thoroughly demonstrated by Dr.

Churchill, of Paris, in his treatise on the hypophosphites in phthisis, and so well elaborated by R. W. Gardner, of New York, that it seems unnecessary to enter into detail on this treatment. A few points may be well quoted here, however, for the purpose of cautioning the profession against the misuse of Dr. Churchill's ideas. First, "the hypophosphites of soda, lime and quinia are the only ones indicated in phthisis." Second, "the hypophosphite must be chemically pure and uncombined." Third, "the hypophosphite should only be in the form of a syrup, because this is the only vehicle which will protect it from oxidation in the air." Fourth, "soda is indicated in the incipient stage and lime in the second and third stages, with exceptions." Lime reduces expectoration; soda favors it. Judgment in using both is necessary. Fifth, "hypophosphites should not be given with any other remedy." Sixth, seven grains in 24 hours is given as the maximum dose in phthisis. Seventh, "plethora must be avoided, for it tends to hemorrhage, and, hence, cod liver oil, iron and stimulants, when used, should only follow the discontinuance of the hypophosphites." Eighth, "complications requiring treatment indicate a discontinuance of the hypophosphites while such treatment is being given."

Iron in phthisis is necessary occasionally. The anemia of this disease being dependent, however, on a different cause from those conditions which bring about anemia through faculty correlation of the constituents of the red blood corpuscle, as seen in chlorosis, the results from iron treatment in phthisis are often disappointing.

(To be Continued.)

PASTEUR.

The Paris Municipal Council has decided to rechristen the Rue d'Ulm and to give it the name of the illustrious savant M. Pasteur. The venerable scientist is said to be in very bad health.

LIGATURE OF THE SPERMATIC CORD IN THE TREATMENT OF HYPERTROPHY OF THE PROSTATE GLAND.

BY J. EWING MEARS, M. D.,
Philadelphia.

In the male subject the function of the generative apparatus involves the secretion of semen, and, under certain conditions, its ejaculation. The former is accomplished in the testes, and the latter by the vasa deferentia, the vesiculæ seminales, the prostrate, the urethra and penis.

In order to explain certain forms of hypertrophic changes occurring in the prostate gland, I think it necessary to consider the anatomical structure of the ejaculatory apparatus. Portions of this are tubal in character, forming ducts or canals, as the vasa deferentia and urethra; the vesiculæ seminales are composite organs not mere receptacles for the accumulation of semen, but possessing secretory power; the prostate is more of a muscular than a glandular organ. As determined by the investigations of Kolliker, the glandular substance does not constitute more than one-third or a half of the whole mass; the vasa deferentia, according to the same author, are endowed with a colossal muscular apparatus, and are stated to be chiefly operative in ejaculation. The seminal vesicles and ejaculatory ducts exhibit the same muscular structure as the vasa deferentia. All parts of the ejaculatory apparatus possess what is essential to their functions—a redundancy of muscular fibres. I refer to these well-known anatomical facts in order that they may be considered in connection with certain forms of prostatic hypertrophy.

Enlargement of the prostate may be due to inflammation—acute or chronic—sometimes eventuating in abscess; cystic degeneration, which is rare; tuberculosis; myomatous growths; carcinoma; simple hypertrophy. Cystic, tubercular and carcinomatous affections of the prostate may be eliminated from considera-

tion on this occasion as being without the circle of conditions possible to be relieved or in any way affected by the plan of treatment to be discussed. The remaining affections clinical observations have, I think, satisfactorily determined as enjoying intimate relations with the functional activity of the secretive organs of the generative apparatus, and therefore affected by any conditions which control this.

An organ in a state of inflammation requires, in order that it may return to a normal condition, a cessation, so far as it is possible, of its functions; if this is not accomplished the inflammatory action progresses, with the resultant effects of plastic deposit, increase in size, the course of the inflammatory action terminating in this stage, or possibly continuing to the suppurative stage.

In myomatous growths of the uterus clinical observation records the fact that in married women, or in single women in whom the sexual activity of the generative organs is maintained, these develop more rapidly and attain a larger size than in the unmarried female or in the single female who does not indulge in sexual congress.

Clinical investigation has also determined the fact that simple hypernutrition is the result in many instances of over-stimulation; of inordinate functional activity. In this manner it is possible to account for simple hypertrophy of the prostate, that condition which more than any other is responsible for the serious secondary conditions manifested in the urinary apparatus. With this condition the surgeon has to deal oftener than with any other form of hypertrophy occurring in the gland. Examination of specimens of prostate glands affected with simple hypertrophy shows, according to Billroth, that there is no increase in the glandular elements, but simply expansion of the acini and epithelium hyperplasia. The frequently observed enlargements of the gland depends essentially on diffuse myoma.

The question as to the occurrence of hypertrophic changes in the prostate gland at a period of life when,

on all other glands and tissues of the body the law of atrophy assumes sway, has often been asked, but never satisfactorily answered. May the answer not be found in its anatomical structure and in its anatomical and physiological relations? In structure and function it is composite. The arrangement of its muscular fibres would seem to indicate that their duty was more than that which relates to the function of the glandular portion of the organ—more than the simple expulsion of the secretion of the gland into the general ejaculatory canal. Placed near the culmination of the forces concerned in the expulsion of the spermatic fluid, its function would appear to be that of a reinforcing agent—of giving increased propulsive movement to the column of fluid which it may be comes only from the seminal vesicles or from both vasa deferentia and seminal vesicles. Is the hypertrophy, therefore, conservative in character, occurring at a period of life when nerve power declines and the other muscular portions of the ejaculatory apparatus yield to the law of atrophy?

It is my observation that the form of hypertrophy under discussion occurs in those who have over-indulged in sexual appetite—who have kept the generative organs in prolonged state of excitement with, in many instances, incomplete acts, or without acts of coition, these conditions resulting in over-stimulation of the gland.

Coming now to the plan of treatment suggested in the title of this brief paper, it would appear to be both philosophic and physiologic, as an effort has been made to show that the pathologic condition present is directly associated with the functional activity of the generative apparatus. Obliterate this, and all organs associated in the production of this function will be affected. Without the organs for secretion of semen the ejaculatory apparatus has no function.

The eminent Rokitansky long since observed that the prostate is generally found to be small when

the organs of generation are in imperfect condition, and a diminution of the prostate with relaxation of the glandular tissue has been observed as accompanying atrophy of the testes.

To obliterate the function of the generative apparatus is therefore a rational method of treatment in prostatic hypertrophy of the forms above mentioned. How can this be accomplished? Dr. J. William White, in an elaborate paper on "Surgery of the Hypertrophied Prostate," read before the meeting of the American Surgical Association, in 1893, referred to the operation of castration as a therapeutic measure in hypertrophy of the prostate, and reported a number of experiments which were conducted on dogs, showing that removal of the testes in these animals was followed by prostatic atrophy. Without doubt castration would prove effectual in the production of atrophy, and the reports of cases have appeared in recent current surgical literature in which very positive relief was afforded by the operation. It is an operation, however, to which patients will naturally refuse to submit unless in the very last stages of disease of the bladder resulting from prostatic obstruction.

In the discussion which followed the reading of Dr. White's paper I suggested the ligature of the vas deferens as an operation which would probably be as efficacious as castration, and one which I believed would be more readily accepted by patients. I have seen the report of one case in which this operation has been performed since that date with a successful result.

Within the last year I have taken occasion to examine patients on whom I had performed subcutaneous ligature of the vessels of the cord for varicocele, and I have observed more or less atrophy of the testes in these cases. In all the vas deferens was not excluded in the ligature. One patient, aged at the time of the operation, 18 years, reported that subsequent to the operation nocturnal emissions, from which he had suffered greatly, disappeared, showing, I think, the relief afforded to pros-

tatic irritation by the operation.

Inclusion of the vas deferens in the ligature applied to the vessels of the spermatic cord would effectually, I believe, produce atrophy of the testes, and the operation is not increased in gravity. It might be advisable to apply the ligatures at intervals of time.

The gradual disappearance of the sexual function would not disturb the mental condition of the patient, as many realize it from other causes, and the consolation he would derive from the presence of the testicles, with relief from suffering, would, I believe, fully compensate. In all cases the patient should be informed of the character of the operation, and what is intended to be accomplished by it. With him should rest the decision. I regard it the duty of the surgeon, however, to urge very earnestly the performance of any operation which will be efficacious in terminating the sufferings, sometimes horrible as they are, of patients suffering from the results of prostatic obstruction.

A NATIONAL DIPHTHERIA COMMISSION.

According to the Journal of the American Medical Association Representative Goldzier, of Illinois, has prepared and will endeavor to secure the prompt adoption of a joint resolution for the creation of a National Commission for the investigation of the antitoxin treatment of diphtheria.

AN INTERNATIONAL CONGRESS ON CHILDHOOD

Will be held in Florence in the spring of 1895. Among the questions to be discussed are the physical, moral and mental elevation of children, children's hospitals, the care of deaf mutes and blind children up to the time of their admission into an educational institution, care of poor and abandoned children, reformatories, and vagabondage in its relation to childhood.

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PHILADELPHIA, JANUARY 26, 1895.

THE TREATMENT OF APPENDICITIS AND PERITYPHLITIS, BASED ON A CORRECT KNOWLEDGE OF ITS CAUSE.

Since the operation for the relief or cure of diseases of the appendix vermiformis has become an au courant procedure, the tendency of most of our noted surgical writers has been to describe the varied types of local morbid anatomy encountered and the details of operative technique, rather than to give us any light on the underlying pathology of the malady.

Here lies a large unbroken territory for the patient investigator; for, to anyone who has observed many of these cases in their incipient stages it is only too evident that deranged physiological processes and a disturbed, perverted state of the whole system always antedates diseased local action.

If we were assured beyond question that the pathological changes

of appendicitis are solely of a local character, then, obviously, our therapy should be directed to the seat of such condition exclusively.

At first it was thought that this was proven, that the cause was chiefly mechanical, that fecal concretions or foreign substances blocked up the lumen of the appendage, and, by pressure, provoked inflammation and perforation. Many recent observations have, however, demonstrated that this view is untenable, and that in most cases the lumen is empty, even when gangrene is present.

It was then assumed that the organ, being without apparent function, it was but slightly vascular: i. e., it had but one artery; though in many of the most serious cases we will find a mes-appendix carrying a dozen or more vessels directly into the walls of the appendix. Another catching theory was that the neuroses in the initial stages so influenced and diminished the activity of the nutritive processes as to favor degenerative changes; that the trophic nerves playing a dominant role, were atrophied, etc. The stern truths of science have put a quietus on this new discovery (?), inasmuch as no microscopist has ever yet been able to isolate such a system of nerves.

Next came the all-powerful germ doctrine, the "infection atrium," the bacterium coli; et id omne genus; we must first have a lesion, a bruise, tear, etc., a sort of portal of admission, and next, an onset of the pathogenic germs. The champions of this theory, in order to make their ideas hold, must show us how it is that the female sex in adult life is singularly exempt from this malady, and that it is by no means more common among laboring men, exposed daily to various types of trauma. Hopgadi has shown that the colon bacillus is equally present in the mild and suppurating cases, and other microscopists have found it in nearly every organ of the body.

We must assume that the fons et origo of this malady are constitutional, therefore, and consequently if we would arrest its ravages our prophylactic and curative measures at

its outset should be systemic, conjoined with such local relief remedies as will arrest inflammatory changes. Pain must be subdued and mercury plied with a free hand. When the stomach is rebellious, as it usually is, free inunction over the whole abdomen answers better than internal administration. Its action is prompt, when it is used, and we will always notice after its timely employment a slowing up of the pulse; it becomes steadier and stronger; the temperature falls, the nausea and thirst abate, the patient freely perspires and the bowels open. Our constitutional measures must be adapted to meet the varying requirements of different cases; but to be of any avail they should be instituted with a prompt and vigorous hand.

It won't do to hesitate or parley, for after the disease has passed into the suppurative stage our only hope lies in the surgeon's scalpel, which is a confession of the importance of internal medication, a stigma which physicians should strive to remove by demonstrating that this art is adequate in this inflammatory condition as others, when properly directed.

PAY PATIENTS IN GENERAL HOSPITALS.

We learn through our British exchanges that the medical men of North London are up in arms, because the management of the Great Northern Hospital has decided to open its wards to pay patients, and that the Medical Board has acquiesced in the arrangement.

Practitioners in that district of London likely to suffer the most through this prostitution of hospital work promptly held a meeting of remonstrance and petitioned the Medical Board to refuse to attend any cases except free patients.

To this only an evasive answer was sent, when another meeting was convened to take action on the matter. On this occasion drastic measures were recommended, and it was proposed to sternly apply the boycott; to refuse, under any circumstances whatever, to call any

member of the Medical Board of this hospital in consultation.

The prospects are that, unless the Medical Board of the Great Northern do not soon revoke their new regulations, we will soon witness a most evident upheaval in the British Medical Association. At one of those meetings of protest a practitioner declared that it only was necessary to extend this hospital pay scheme to blot the general practitioner out altogether.

Now, while our English cousins are wrestling with this innovation of pay-hospital cases, let us see how we are placed in this country with this matter. At the very threshold of the discussion it should be admitted, without question, that our country is vastly over-hospitalized, and that four-fifths of them could be wiped out or turned into lodging houses greatly to the advantage of the masses.

A community has an excess of money which it has no use for, and its investors want to try their hand at nursing, when St. So-and-so's Hospital is at once started. Physicians rush for appointments that they may make a name, gather large fees and become consultants and professors. They serve for nothing (?)—as if medical men can live on the four winds of the heaven!

Hospitals are founded for no other purpose, often, than to provide material for medical schools.

They pretend to do for the suffering ill more and better than can be done in their own homes. And this deceives and demoralizes them; for no hospital ever will be constructed or maintained that will provide the comforts of their own humble shelter. They foster pauperism in offering their services gratuitously for what their patients are well able to pay, in many instances.

In America the ever-growing crop of hospitals and free dispensaries are the bane and curse of the profession, and if we propose to stand passively by and allow a handful of our members, who happen to have influence, rob us of our legitimate trade it is about time that we throw codes to the dogs and squarely start out in quackery.

We will watch events on the other side of the water with interest, and be anxious to observe the action of the Incorporated Medical Practitioners' Association in its dealing with this problem of hospital piracy.

Book Reviews.

BLOOD SERUM THERAPY AND ANTITOXINES. By George E. Krieger, M. D., Chicago, with illustrations. E. H. Colegrove & Co., Publishers.

A little monograph like this coming out at the present time is very apropos. It treats of the theories generally advanced for the treatment of diseases to which antitoxines are applicable. The illustrations are made to show the various bacilli. Whether the theory of antitoxine treatment, based on germs as primary causes of disease, is correct, is a matter of question. We incline to the opinion that their action is one of chemical relation, but as this point has been elaborated in recent issues of this journal it is unnecessary to enter into its discussion here. The book is a useful addition to medical literature, for by the knowledge of both sides of a question can we arrive at the only true conclusions.

REGISTER OF THE NEW YORK COUNTY MEDICAL ASSOCIATION, 1894.

This little book contains a list of the names of the above-mentioned society, together with the names of other practitioners of New York city. It gives a brief account of its own organization, as well as one of the American Medical Association and the International Medical Congress.

There is an account of the action of the American Medical Association on report of Committee of Revision of the Code of Ethics and By-Laws at the meeting in San Francisco, June, 1894.

Other chapters are devoted to the medical profession and the public health, notes concerning the army, notes concerning the code and its teachings, modern Greek as an international language, a brief summary of medical laws and a section on irregulars and quackery.

KOLA REDIVIVUS.

That there is at present a widespread and growing interest in African Kola is evidenced by the recent appearance simultaneously at home and abroad of a large amount of literature on the subject. By far the most comprehensive publication relating to the drug that has come to our notice is the monograph study of Kola, published by Johnson & Johnson, New York, which is now before us.

The first seven pages of this little book are devoted to a very complete bibliography of Kola. Subsequent pages contain a review of this literature, with brief extracts from the same, and a study of both African and West Indian Kola, the latter being a cultivated variety of the *Cola Acuminata*. Messrs. Johnson & Johnson in pursuing their studies of this latter variety have not depended on the ordinary sources of information, but have sent their own representatives to the Antilles to investigate the plant at its place of growth. The illustrations contained in the book are made from photographs taken by their representatives, and show the Kola as it is found in its habitat; also the methods employed by the natives in the drying, using, etc. A chapter of the book is also devoted to the physiological action of Kola, and contains the reports of many authorities, also illustrations showing the effect of Kola upon muscular contraction. Special reports upon West Indian Kola from Mr. F. B. Kilmer, of New York, and Dr. James Neish, F. R. S., of Kingston, Jamaica, are appended. In addition there are to be found full notes upon the clinical uses of Kola, dosage, time for administration, directions for employment, etc. Messrs.

Johnson & Johnson have made an exhaustive study of the fresh Kola used by the natives of Africa and the West Indies, as compared with the dried Kola to be found in the market, which shows that the chemical and physiological action of the forme rare quite different from the latter.

CONTUSION OF THE ABDOMEN, WITH RUPTURE OF THE THORACIC DUCT. By Thomas H. Manley, M. D., Visiting Surgeon to Harlem Hospital, New York. Reprinted from the Medical News, November 3, 1894.

INTESTINAL ANASTOMOSIS—WITH THE REPORT OF A CASE. By Frederick Holme Wiggin, M. D. Reprinted from the New York Medical Journal for December 1, 1894.

MEDICAL AND SURGICAL REPORTS OF THE BOSTON CITY HOSPITAL. Fifth series. Edited by David W. Cheever, M. D., George B. Shattuck, M. D., and Abner Post, M. D., 1894.

Surgery.

DR. T. H. MANLEY, New York.

COLLABORATOR.

GREEN PUS AND THE BACILLUS PYOCYANEUS.

Schimmelbusch (Cent. f. Gyn.) writes regarding the pathological significance of green pus and the bacillus pyocyaneus. Green and blue pus is the result of the bacillus pyocyaneus. Through its growth in the secretion of a wound it causes a green coloring matter—pyocyanin—and a characteristic sweetish, musty odor, which may be slight or most offensive. This bacillus produces not only green and blue coloring matter, but also, as may be seen in a single wound, yellow and brown. The richest shade or shades of these four colors may be seen. The amount of irritation produced in a

wound depends upon the amount of air present—i. e., oxygen—whether there is a favorable culture medium for the bacillus and the conditions or quality of the bacillus itself. He then answers the interesting question why this bacillus appears in clinics and hospitals and why it always appears in wounds. The wound is not infected through the atmosphere or dressings or by the hands and instruments of the physician, but the bacillus is normally found on the skin as a saprocyte. It has a predilection for particular parts of the body, as the axilla, inguinal regions, anus, etc., and, therefore, most frequently infects wounds near these parts. Is the bacillus pyocyaneus pathogenic? From experimentation upon animals and as far as observation upon man has gone, this organism locally and generally virulent, but the virulence depends upon the character of invasion.

THE SURGICAL TREATMENT OF DISEASES OF THE STOMACH.

In my last I promised to return to the address of Dr. Rosenheim on this subject. He said that, as regarded the treatment of malignant disease of the stomach, results were only to be expected from the hand of the surgeon. There was no certain cure in operation, but this could not be decided against, as it had been only so recently made use of. A short time ago he had shown a patient who four years before had undergone resection of the pylorus, and the patient was still in good health. The operation, however, could only be looked upon as a blessing when we succeeded in rendering patients healthy and capable of work for years. Two operations were to be considered: resection with removal of all the disease, and gastroenterostomy, the formation of a fissurous opening between the stomach and the small intestine, whereby stagnation of the masses was avoided. According to Guignard's statistics the mortality in 153 resections for carcinoma of the stomach was 62 per cent. Le-

boeuf's statistics on 108 cases showed a mortality of 58 per cent. In resection of the stomach the decisive factor was the special technical capability of the operator. In the case of Kocher, who had nine cases, the two fatal ones were at the commencement of his operative activity. As regarded gastroenterostomy, according to Guignard's data, the deaths were 31 per cent. in 105 cases. Other operators had different results. Rockwitz reported a mortality of 12.5 per cent. in Luck's clinic, while for some years past the whole of Hahn's cases had recovered. The conditions that led to operation had also to be considered as regarded the end result. In what way the different factors influence the permanent result was shown by the speaker's own statistics. Of the cases of resection of the stomach, one died in a year of malignant peritonitis. The other three died soon after the operation, one 36 hours after from hemorrhage. The second, operated on against the speaker's judgment, died of collapse. The third, a woman, aet. 37, who had bronchitis, died on the ninth day of pneumonia. Eight other cancer patients, on whom Loretta's operation was performed, all died. On the other hand, he had not lost a case of gastro-enterostomy during the whole of last year. The statistics showed that resection was by far the more dangerous operation of the two, and the cases for it must be selected with great care. The patient must have good resisting power, and the local condition must awaken favorable expectations. Besides this, those cases must be excluded that, after opening the abdomen, showed their unsuitableness. Contra-indications: 1. Extension of the tumor over half the stomach. 2. Extensive adhesion to liver and pancreas. 3. Infection of the mesentery, especially metastases. 4. Infiltration of the adjacent lymph glands. By a critical selection of cases, therefore, the mortality would be reduced to a minimum. Any advance in results depended on advances in the determination of the diagnosis. There was no specific certain sign of the

disease even in advanced cases, let alone the earlier stages. A combination of the symptoms, however, permitted a diagnosis bordering on certainty. The diagnosis was free from doubt only in two classes of cases, that in which cancer particles were found in the contents of the stomach, and that in which metastases were met with in other organs. At the same time, however, in a considerable number of cases a probable diagnosis could be arrived at that justified an exploratory laparotomy. If the tumor was not operable, a palliative operation could be carried out. Many cases would be improved by washing out the stomach. When the obstruction was considerable, however, patients could not be kept up in this way, and here a palliative operation was demanded. This had given brilliant results in the speaker's eight cases. The majority of the patients had remained well eight months after the operation. No doubt the stimulating energy of the local irritation had a considerable influence, and when this was removed the further development of the carcinoma was decidedly restrained. Patients recovered from their condition of lowered nutrition and became again fitted for work. The motor function might return to the normal after resection of the pylorus. In cases of gastro-enterostomy the motor function could not be completely restored, but the patients were freed from trouble and increased in weight. Secretory activity could not be completely restored by suitable emptying of the stomach, but patients might improve. This palliative operation, which, when performed by a skilled hand, was free from danger, could be carried out more frequently than hitherto. The results in the case of simple tumors would be better than when the disease was malignant. There were various methods of relieving obstruction in narrowing of the pylorus, resection gastro-enterostomy and pyloroplastique. Four of his cases on whom Hahn performed gastro-enterostomy were quite well. This operation was the sovereign procedure in all cases in which stricture of the pylorus had to be over-

come. Pyloroplastique appeared to be suited for those cases only of cicatricial stricture caused by caustics. In all cases of true ulcer no cicatrix was found. Cases of open ulcer were very unsuitable for pyloroplastique, for if the ulcer remained open, all sorts of complications, such as hemorrhage, might arise; if the ulcer healed a second stricture might be formed that rendered the value of the first operation illusory.—Medical Press, Nov. 28, 1894.

Medicine.

DR. E. W. BING, Chester, Pa.
COLLABORATOR.

TREATMENT OF DELIRIUM, HEADACHE AND INSOM- NIA IN TYPHOID CASES.

—Le Gendre.

Delirium may occur at the outset and be continued; due to the congestion of the brain accompanying the headache it is best treated by cold baths where there is no contra indication. The temperature of the bath should be progressively lowered. If these are not tolerated cold affusions are the next best means, regulated by their effects. If the delirium recurs, cloths wet with cold water and vinegar or the ice cap are indicated.

Delirium may only appear during the second week at the height of the fever—in these cases it disappears generally during the early hours, to reappear during the later hours of the day. The best methods of treatment are baths and antipyretics (quinine) where delirium is intense; with sleeplessness or desire to get out of bed, the calmatives—opium chloral, the bromides. If the heart is weak chloral should be avoided, and the same as regards opium if albuminuria and scanty urine or constipation is present. The bromides are best avoided if the stomach shows any intolerance. When none of these contra indications are present

the drugs may be associated. Delirium appearing during the third week is generally due to debility, and requires nutritious drinks, as milk, soups and generally alcohol in some form.

A very good combination is:

Extract of Opium.
Tinct. of Canella.
Port or Sherry Wine.
Water.

given in doses gauged according to the indications.

Sometimes delirium is accentuated by too large quantities of alcohol being taken. This must be borne in mind.

Another variety of delirium is sometimes met with in the third week, which relates to some special cause, as religious excitement, fear of persecution, etc. The psychical antecedents of the patient must be investigated and the case watched carefully.

Headache, when due to gastric intestinal disorder, is often relieved by vomiting. When due to the fever cold compresses and removal of the hair are useful. Massy has seen great benefit result from the application to the forehead and temples of

Cold cream. 20 grms.
Cyanide of potassium. 0.10 to
0.20 grms.

Sometimes hot applications succeed best.

Where insomnia is marked the surroundings should be cared for, ventilation secured, odors of any kind removed, bed clothing properly arranged and if necessary hypnotics administered, such as the camphor and opium pill. Quinine often acts as an hypnotic in these cases, when taken in considerable doses in the evening.

PARALYSIS FOLLOWING SORE THROAT RECOGNIZED AS NON-DIPHTHERITIC BY BACTERIOLOGICAL EXAMINATION.

—Proust.

The new ideas which bacteriology has added to the study of diphtheria are far from clearing up the question. We know that there is no clinical sign which allows us to affirm

the nature of a psuedo-membranous angina; and that there are, exceptionally, it is true, sore throats caused by Loeffler's bacillus, unaccompanied by false membranes.

So, to conclude that the supposed diphtheritic and catarrhal sore throat, followed by paralysis are only manifestations of more or less abnormal diphtheria is not correct—as Roux and Gerin have shown that we may produce artificially in the dog paralysis similar to that in man would seem to make these paralyzes specific in character.

While, although rare, this has been observed, following acute diseases, e. g., after typhoid and pneumonia, paralysis attacking more or less completely the velum palati and the limbs, and presenting analogous characters to those of diphtheritic paralysis.

If we consider, on the other hand, that we have been able to obtain paralysis in animals following the injection of the streptococcus or pneumococcus, the concomitants of non-diphtheritic sore throat, we are not far from admitting the possibility of the paralysis of Gutler (non-diphtheritic). The following case leaves no doubt on the reality of paralysis consecutive to sore throat (non-diphtheritic):

A child of 7 had pseudo-membranous sore throat for 17 days. Fifteen days after the disappearance of the membranes the patient had nightmare and grinding of the teeth. The following day he had abdominal pain, headache and fever, the next day strabismus, two days after nasal voice and regurgitation of liquids.

The strabismus persisted and lasted for 15 days. At the end of a month the child could walk with difficulty; the cure was only completed after six weeks, but bacteriological examination showed that the false membranes of the throat did not contain Loeffler's bacillus, but streptococci.

Further, the mother was attacked with the same kind of sore throat, and the membrane here also showed the absence of Loeffler's bacillus. This double proof establishes the

fact that paralysis presenting the characters of that following diphtheria, attacking successfully the motor oculi, velum palati and inferior limbs may follow ordinary sore throat.—Bull. d l'Acad. de Med.

PHENACETINE FOR ENURESIS.

Holladay (Va. Med. Monthly) has found this drug excellent in cases of enuresis in children, five grains at bedtime, and in the troublesome, too frequent micturition where there is enlarged prostate, especially where cystitis is present, the urine being made acid. In such cases he gives a large dose, as much as 20 grains, at bedtime, with the happy result that the patient sleeps better and does not have to arise so often during the night. He has never had any bad effects that could be ascribed to the drug, and thinks, from all the reports of it that are noticed and from his own experience, that it is the safest of the coal-tar antifebrile products that are at present in use.

LARVAL FORMS OF DIPHTHERIA.

Heubner speaks of anomalous cases of diphtheria occasionally seen in weakly and ailing children. The child does not present the ordinary manifestations of diphtheria, but symptoms referable to the respiratory or digestive organs, and a less characteristic fever. Then more or less suddenly severe laryngeal stenosis may reveal the nature of the case, but at times the disease is recognized only at the necropsy. The author records an illustrative case in an infant, 11-2 years old, admitted with severe rickets and a fracture of the femur of sixteen days' standing. Some four weeks after admission the temperature rose. This was attributed to a nasal catarrh and bronchopneumonia. The throat appeared healthy. Four days before death hoarseness supervened, and three days later symptoms of laryngeal obstruction, for which intubation was done. Diphtheria serum was then injected. A few hours later tracheotomy was performed, but the child died the next day. The author thinks

that in all probability the diphtheria began in this case with the rise of temperature seventeen days before death. He records another atypical case. The disease was here suspected, and then bacteriologically proved. The child was treated with antitoxin, and recovered. A third case is also reported, in which the disease ran clinically an absolutely latent course. During life the symptoms pointed to a severe gastric affection. There are two facts to be remembered—(1) the condition of the child before the infection, and (2) the presence of atypical symptoms which are likely to be put down to the original disease. In a footnote, Heubner takes the opportunity of refusing to accept any responsibility in the views put forward by Hansemann before the Berlin Medical Society (*British Medical Journal*, 1894, No. 1772) concerning a case from his own clinic.—*Deut. Med. Woch.*, December 13, 1894.

Philosophy.

DR. HENRY BURCHARD, Philadelphia.
COLLABORATOR.

A student expresses himself as finding difficulty in understanding Dr. Garretson's last book, "Nineteenth Century Sense," and with reason, for, as he states, it is the only one of the series he has read. Progressive thought and expression form a series in these works, as in any other, and comprehension of culmination (I hope not this, however) is through a study of the elements seriatim. Let him begin with "Odd Hours of a Physician," and read carefully each volume, and he will find the entire work unfold to him. Reading as he does now is equivalent to a student of mathematics working at the differential calculus before he has mastered his geometry and algebra. Understanding of astronomy is only to be had through mastery of the laws of mechanics. Read the series, and this advice will be appreciated at its worth on the completion of his reading, "Look to't, Ly-sander."

H. B.

Many mediums state, and, no doubt, in all honesty, that they see spirits; see disembodied entities which once were men, and that these are recognizable.

It is not denied that they do see, but how? Seeing may be physiological or psychological. The researches of anatomists as to the topographical anatomy of the brain have given us a new phrenology, one in which speculation and assumption are relegated to a second place, and sound hypothesis and safe theory are in the ascendant. The regional anatomy of the brain has shown among other centres one of sight, probably a cerebral region which has to do with that function. As these centres are the perceptive, the ultimate function resides in them, and the receptive organs, retina, internal ear, olfactory organ, etc., are mere peripheral instruments, transmitters.

What psychologically sees, feels, hears, smells or tastes is the region adapted to the ultimate reception and perception of the gathered impressions from the exterior. That the medium may to all intents and purposes have the perceptive centre affected in a manner equal or similar to that of external perception is granted; but that he or she has a retinal disturbance due to impressions received from such an external entity as is described, is for the present logically denied. That is, it is recognized that there are wide differences in individuals, greater in the cerebrum than in its instruments; but there are undeniable conditions necessary for the operation of these instruments, as much as for any physical apparatus. The first and foremost of these is what Dr. Garretson terms the opacity of matter (and the metaphysical world is under debt to him for the phrase); so that the medium may see ghosts, but it is without the participation of the retina. This excludes, of course, all pathological conditions of the eye from the argument. The inquiry of what sees is paraphrasing Dr. Garretson's inquiry of what feels pain. Solve it who can.

H. B.

A man's ethical standard and practice are of a twofold relationship—one religious, the other social or political. The first expressed in systems of theology, the other of laws and usages. There is a popular idea to the effect that law has its foundation in revealed theology, but this is in great part fallacy. It is an evolution of man's ideas of justice, founded upon their every-day relations, in which, when theological dogma has opposed, the latter has been gradually or violently set aside. The wit of the lawyer, the jurist, in contest with that of the clergy has resulted in a mastery of the former, which the iron hand of the Inquisition stayed but partially. It is curious to note through the panorama of history the changes in the ideas of special justice develop. Sociologists may find in this evolution of law, even disassociated from industrial development, a fair reflex of the progress of humanity. To be accurate, however, such a disassociation is inadmissible, for there is a close interdependence between general progress and that of law. The one reflects the other. The advance of all branches of human learning compels the modification of law. We see this in the fact that equity becomes an adjunct to common law—an expedient of elasticity grafted upon a more or less rigid stem.

This is a phase of the compulsory ethics which men impose. The theological, the supposedly voluntary ethics, has received the general attention, it seems, almost to the exclusion of the former. H. B.

Bishop Nicholas—Who does the greatest deeds in this world?

Earle Skule—The greatest man.

Bishop Nicholas—But who is the greatest man?

Earle Skule—The bravest.

Bishop Nicholas—So says the warrior. A priest would say: the man of greatest faith—a philosopher—the most learned. But it is none of these, Earle. The most fortunate man is the greatest man. It is the most fortunate man that does the greatest deeds—he whom the crav-

ings of his time seize like a passion, begetting thoughts he himself cannot fathom, and pointing to paths which lead he knows not whither, but which he follows and must follow till he hears the people shout for joy, and, looking around him with wondering eyes, finds himself the hero of a great achievement.

—Ibsen.

Ophthalmology.

DR. J. A. TENNEY, Boston, Mass.
COLLABORATOR.

PARALYZED OCULAR MUSCLES.

Dr. Savage, in a discussion upon a paper read by Dr. Landolt at a meeting of the British Medical Association last summer, gave a method of detecting which of the recti muscles is paralyzed, which is exceedingly simple, and of great value to the general practitioner.

The patient holds a lighted candle in the median plane, when it is seen as one. Suppose that by moving it to the right diplopia is produced; the affected muscle is on the same side of the eye to which it belongs. It is either the internal rectus of the left, or the external rectus of the right eye that is paralyzed, and the affected eye sees the farthest candle.

If one of the vertical muscles is affected, the test is begun in the median plane. If diplopia is produced by moving the candle upward, it is a superior rectus that is paralyzed, and it belongs to the eye that sees the higher candle.

CORNEAL ULCERS.

In the International Congress of Ophthalmology held in Edinburgh last August, Dr. Mules stated that he was in the habit of curing ulcers of the cornea in three days. He uses discs composed of iodoform, boric acid and gelatin.

The cornea is first rendered insensible by the instillation of cocaine; then the ulcer is covered with one of the discs, the eye is closed, and a bandage applied. The bandage is allowed to remain for three days, when he finds the ulcer cured.

CAUSATION OF CATARACT.

Every patient with incipient senile cataract asks the ophthalmic surgeon to tell the cause of the trouble. The causes of cataract are various. We will name them in the order of their importance.

It is one of the degenerations that go with age. The cells that line the capsule upon the anterior surface of the lens fail to absorb nourishment from the aqueous humor for the lens fibres.

Exophoria is one of the causes of cataract. The excessive effort made by the eyes in the process of convergence weakens the power in the eye to nourish itself. In a similar way uncorrected hypermetropia may be a cause of cataract.

A great degree of myopia, giving rise to synchysis, and diabetes, are universally admitted to be causes of cataract. When lens degeneration takes place in the course of these diseases, the connection is too obvious to be called in question.

Therapeutics.

DR. LOUIS LEWIS, Philadelphia.
COLLABORATOR.

THE MODE OF ACTION OF THE ANTITOXIN.

In the January 5 issue of the "British Medical Journal" "Sceptic" writes: There are many questions which might be put to those who support the serum treatment of diphtheria. Antitoxin, it would appear, has nothing to do with the microbes of diphtheria. Not microbes, but their filtered products, are injected into the horse. Antitoxin is by the hypothesis a result of the reaction of living tissues to a chemical poison—toxin. How, then, are we to account for its action when within the vessels on the membrane which is "practically outside the body?" How does it cause it to dissolve and strip off? The estimation of the antitoxic power of the serum is a mere numerical matter of test tubes and guinea-pigs, the units being cubic centimetres and lethal doses. In the test

tube the toxins and the antitoxins neutralize each other; why, then, if it is a matter of chemical neutralization, does it take two days to effect its purpose? One would think that when the chemical antidote had been introduced the organism would at once be indifferent to the toxins, but that, nevertheless, these would continue to be brewed by the microbes, which being outside the body would be beyond its influence. But exactly the opposite seems to be the case; the character of the membrane soon changes, it loosens and strips off, while the relief of the toxemia, the chemical reaction of toxins and antitoxins, which ought to fizz off like a seidlitz powder, takes two days to do its work.

Keeping still to theory, are we to imagine that the human body is a magic bottle, which can pour out at will all the various antitoxins to all the various toxins produced by all the various microbes of the multitudinous diseases from which man suffers? This would seem to be part of the hypothesis of chemical neutralization, but it is hard to accept.

So far as physiology teaches, each cell in the body sticks pretty definitely to its own work; whence, then, comes this extraordinary array of new and strange compounds? Are they not, in fact, merely altered toxins? That they have nothing to do with immunity seems to be shown by the fact that although the horse remains immune, he must be continually loaded with toxins to keep up the supply of the antitoxin. May not the joint pains, etc., be really the result of unconverted toxins?

In German criticisms of the treatment such stress has been laid upon the fact that the hospital cases have changed in type in consequence of mild cases being sent to hospitals because there alone could the treatment be obtained, that it is very important to know whether any variation of any sort was made in the mode of selection of the cases for admission to the Eastern Hospital. What about the ages of the patients? Everything depends on the assortment of ages.

Among 70 patients a very small

increase of the number between 10 and 15 who last year and the year before only died at the rate of 6 and 6.1 per cent. respectively at the Eastern Hospital, would make a vast dilution of the mortality. In those same years the mortality under one year of age was 81 and 90 per cent. in the same hospital, while in another it was 100 per cent. last year, as it was also in two hospitals the year before. Clearly it might require, even on the lower percentage, fifteen times as many of the older cases to make up the same mortality as it would of the younger. Even taking the general average for five years, the cases under 3 years of age die at six times the rate of those between 10 and 15.

Further, the remarks of Mr. Shirley Murphy before the Epidemiological Society must not be forgotten. He pointed out that the period of greatest virulence as shown by case mortality, does not coincide with that of greatest prevalence; and, although we know that their treatment was carried out during a time of great prevalence of the disease, it will not do to assume that the virulence was equal to the average of the year. Many details require to be known before statistics founded on small numbers and short periods of time can be accepted.

MEDICATION FOR CHILDREN.

In the present year of grace it is nothing less than torture to administer drugs to children in a nauseous form, while there are so many means of making them palatable. Even if instances occur when a drug is only available in a disagreeable or bulky form, a very little study and care will enable the practitioner to substitute a pleasanter agent very little inferior in therapeutic usefulness. It is important to consider that any deficiency in the substitute may in the end be more than compensated for by the fact that it does not upset the patient's nervous system, that it can be continued as long as required, and that it is probably more readily assimilated.—London Practitioner.

Obstetrics and Gynecology.

THE CURETTE IN PUERPERAL INFECTION.

Ferre strongly supports this practice after long experience of irrigation of the uterine cavity for puerperal infection, a procedure which lowered mortality but did not save several bad cases. At the same time he never had recourse to the curette after labor excepting when placental relics required removal. Since using the curette six bad cases had been treated by Ferre, with only one death. The fatal case, it must be noted, was a private patient, and symptoms of infection immediately followed natural labor at term; she was left without assistance for five days, and the curette was employed as a last resource. The patient died on the seventeenth day. In a second private case the curette was used on the second day immediately after a rise of temperature with rigors. The symptoms of infection at once vanished. In a third a live child was born; a twin then presented at the shoulder. Embryotomy had to be performed. Fever set in on the same evening; next day large blunt curettes were used, without anaesthetics, the uterine cavity was swabbed with glycerine of creasote and plugged with iodoform gauze. All bad symptoms ceased at once. The three remaining cases were in the Pau Lying-in Hospital, and had all the advantages of treatment in a public institution. They resembled the second above described, except that in one case parametritis set in before the curette could be used. All recovered.—*Nouvelles Archives d'Obstet. et de Gynec.*, November 25, 1894.

PATHOLOGY AND TREATMENT OF FIBROID TUMORS OF THE UTERUS.

Treatment of Uterine Fibromyomata.—In this connection I purpose to refer briefly to the various methods, surgical and medical, that may be resorted to in such cases.

Before alluding to their details I may here reiterate that, whilst fully recognizing the utility in appropriate cases of some of the operative procedures which are in many instances successfully employed in this way, I still remain none the less convinced that the general necessity or expediency of surgical interposition is greatly overestimated; it being within my own cognizance that a large proportion of uterine fibroids call for no active treatment, and also that in some cases such growths may be satisfactorily dealt with by non-surgical methods.

The prominence into which the operative treatment of fibro-myomata has recently come is based not only on the suffering and inconvenience thus occasioned, but also on the danger to life said to attend their development. I may, therefore, again observe that in my own long and extensive experience I have hardly ever seen an instance of death directly ascribable to this cause, whilst, on the other hand, I have too often witnessed that result consequent on operations intended.

The surgical procedures employed in these cases may be divided into the two classes of vaginal and abdominal operations. In the former are included removal of tumors by ecrasement, galvano-cautery and enucleation as well as vaginal removal of uterus or its appendages. For the three first-named, the selection of which must be governed by the character and situation of the neoplasm as well as the general condition of the patient in each instance, it is essential that the cervical canal, if not already sufficiently patulous for endo-uterine exploration and manipulation, should be rendered so by rapid expansion, which has advantageously replaced older methods of gradual dilatation with tents. In exceptional cases, however, particularly in sterile patients in whom the cervix has not been taken up by development of the tumor, immediate dilatation being impossible, we must still avail ourselves of other methods of expansion.

Ecrasement.—Any submucous tumor which has become pedunculat-

ed or extended so far into the uterine cavity as to permit encirclement may be removed by ecrasement. For this purpose, the uterus being previously thoroughly washed out with a hot carbolic (one in forty) or corrosive sublimate (one in two thousand) solution, the patient is to be etherized and the cervix well drawn down. of steel or delta-metal wire is to be similarly pulled down by another strong vulsellum, over which a loop of steel, or delta-metal wire is to be slipped and guided around tumor to pedicle, on which the slack of the wire may be run in until it begins to bite on the included structure. Next, the operator having satisfied himself that no portion of the uterine wall is thus embraced, the division of the pedicle may be slowly and cautiously proceeded with, so as to obviate hemorrhage, until the tumor has been freed from its uterine attachment, after which it may be drawn out by vulsellum, or, if too large to be thus delivered, by the short midwifery forceps. Lastly, the vagina and uterine cavity should be again washed out with a hot antiseptic solution.

Enucleation.—This operation, which is now comparatively little employed, except in cases of submucous tumors, is, in my opinion, also applicable to some intramural fibro-myomata. As I have before stated, fibro-myomata are primarily indistinguishable from the uterine structure within which they originate, being converted into fibroids by gradual development of their connective tissue, and at the same time generally become encapsuled or separated by an intervening layer of cellular tissue from the uterine parenchyma, from which in many cases they may be shelled out or enucleated. Therefore the enucleation operation by which I have often accomplished this object, although reprobated by some authorities, still appears to me a rational plan of treatment in suitable cases. For this purpose the cervical canal must be sufficiently dilated and the patient placed in semi-prone lateral position and etherized. Next the uterus should be washed out with a hot carbolic injection so

as to diminish the vascularity and render it aseptic. A free incision may then be made through the intervening structure and capsule into the most prominent part of the tumor. This should now be drawn firmly downward in direction of pelvic outlet by a vulsellum, whilst at the same time all adhesions around the tumor are broken up digitally if possible. Lastly, by traction from below, aided by firm pressure from above, the fibroid is forced out of its bed and extracted. In this way I have removed many large submucous tumors, and also some deeper intramural growths.—Dr. Madden in the Medical Press.

Miscellany.

ALIMENTARY GLYCOSURIA IN LEAD COLIC.

Brunelle points out that the presence of modified pigments in the urine, the subicteric tint in the conjunctiva, the diminished amount of urea excreted, show that the liver is implicated in lead colic (hepatic insufficiency). The author has found that when 150 to 300 g. of syrup were taken in the day, alimentary glycosuria was present in 11 out of 21 cases of lead colic. Any question of alcohol being the cause of the glycosuria was eliminated. The quantity of sugar, always small, was greatest during the first two hours. It was the rule for the glycosuria to disappear with the colic. This glycosuria is especially frequent in those who have worked long in lead. The author believes the lead acts directly on the nutrition of the hepatic cell. The glycosuria is fleeting because the lesion to the cells is slight. That some patients with less colic do not have alimentary glycosuria must depend on individual peculiarities. The glycosuria is frequently accompanied by urobilinuria.—Arch. Gen de Med., December, 1894.

VERDICT AGAINST A PHYSICIAN.

A verdict of \$12,000 was awarded by a jury a few weeks ago against

Dr. L. H. Willard, a prominent homeopathic physician of Pittsburg, in a malpractice suit. The plaintiff, a charity patient, was treated by Dr. Willard at the Homeopathic Hospital of Pittsburg for a fracture of the fibula. He left the hospital against the advice of Dr. Willard, and was subsequently treated by a physician in Somerset County, who testified that both bones of the leg were broken. A number of well-known physicians testified that the injury was properly treated by Dr. Willard. The case had been tried twice before. The first time the jury awarded the plaintiff \$5000 damages; in the second trial the jury disagreed.—N. Y. Medical Record.

TRIONAL.

Venanzio, in a pamphlet, published in 1894, remarks that trional is in every sense a hypnotic. It has no action on the pulse, respiration, reflexes, etc. It is superior to most of the other hypnotics, even having advantages over sulphonal and tetronal, but it stands, according to the author, below chloral, which is the sovereign hypnotic. It is not to be compared, of course, with duboisin, which is a most powerful sedative rather than a hypnotic. The author gives trional in honey, mental patients taking it well in this way. He usually gives 1 g., but sometimes 1 1-2 to 2 g. It begins to act in a few minutes, and eventually undisturbed sleep supervenes. No headache or other unpleasant symptoms are noted after it. Trional is most useful in the insomnia of neurasthenics accompanied by depression. In some cases of excitement it is also useful.—British Medical Journal.

DEATH OF PROF. A. L. LOOMIS.

The medical community will be greatly shocked to learn of the sudden death of Prof. Alfred L. Loomis, of New York, which occurred on Wednesday, the twenty-third inst. He had only been sick from the previous Saturday. Death was due to pneumonia.

PENNSYLVANIA STATE MEDICAL SOCIETY.

The members of the Medical Society of the State of Pennsylvania who wish to read papers at the meeting to be held at Chambersburg May 21-24, 1895, will please send their names and the titles of the papers they wish to read, to the chairman of the committee on Scientific Business, Dr. Charles W. Dulles, 4101 Walnut street, West Philadelphia.

The committee desires papers to be absolutely no longer than 10 minutes.

At the last meeting a large number of interesting papers were not read because those preceding them were two long, and it is to be hoped that those who prepare papers for the coming meeting will condense them as much as possible. The laws of the Society permit each writer to occupy 20 minutes, but it will be of advantage if the members of the Society do not avail themselves of all their privilege.

DEATHS FROM CYCLING.

In a recent session of the Paris Academy of Medicine, Petit reported three deaths occurring suddenly during the use of the bicycle. The first case was that of a man 65 years of age who had begun to ride four weeks previously. He died in the arms of his teacher as he was about to get off his wheel. The second case was that of a physician, aged 48 years, who for the sake of reducing a corpulence which had come on after typhoid fever took to cycling. Without previously having complained of heart symptoms he was one day, while on his wheel, suddenly taken with dyspnea and a severe pain in the heart region. He stopped, sat down on a bench and died in a few moments. The third case was that of an athlete, aged 40 years, who died suddenly on the street while cycling.—*Deutsche Med. Woch.*

Note.—Dr. Stephen Roop, of New York, a hale, hearty and vigorous man in the noontide of life, while cycling in New York City, dropped

dead January 7 off his wheel, from heart disease, at the early age of 46 years. Bicycling is a dangerous experiment to the untrained of middle life.—Ed.

It is said a blow on the head seems to cause a flash of light in the eyes, because light is the only impression the optical nerve is capable of receiving.

Prescriptions.

ACUTE PLEURISY.

R—Morphinae sulphat., gr. $\frac{1}{4}$.
Quininae sulph., gr. xv-xx.
M. et ft. chart. S. At once. (To abort a commencing pleurisy).
—Bartholow.

R—Tr. aconiti rad., dr. ij.
Tr. opii deod., dr. vj.
M. S. Gtt. viij in water every two hours. (In acute form before effusion).
—Bartholow.

R—Tr. iodini, oz. j.
Potass. iodini, oz. ss.
Camphorae, dr. ij.
Spt. rect., oz. x.
M. S. For counter-irritation in children.
—Powell.

R—Potass. acetat., gr. xv.
Spts. aether, nitrosi, dr. ss.
Vini ipecac, gtt. iij.
Syr. tolut., dr. ss.
M. S. One dose four times a day. (Sub-acute form).
—Da Costa.

R—Tr. veratri virid., m. xxiv.
Potass. acetat., oz. ss.
Morph. acetat., gr. ss.
Liq. potass. cit., oz. iiss.
Syr. tolut., oz. ss.
M. S. Dr ij every three hours. (Dry pleurisy).
—Da Costa.

R—Potass. acetat.
Inf. digitalis, aa. dr. ii-iv.
M. S. This amount each day; or,
R—Pulv. digitalis,
Pulv. sallae mer.
Hydrarg. chlor. mit., aa. gr. x.
M. Ft. in pil. no. x. S. One pill td.
—Alonzo Clark.

R—Olei tigllii, dr. ss.
Aetheris, dr. j.
Tr. iodini co., dr. iiss.
M. S. Counter-irritant and vesicant in pleurisy, etc.
—Carson.

R—Inf. digitalis, oz. iv.
Potass. acetat., dr. j.
M. S. Dr. j every three hours to a child four or five years old.
—J. Lewis Smith.

—From Physician's Vade Mecum.

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WHOLE No. 856.

Original.

A PRACTICAL THEORY AND TREATMENT OF PULMON- ARY TUBERCULOSIS.

BY FRANK S. PARSONS, M. D.,
PHILADELPHIA, PA.

Editor of The Times and Register.

(Continued from Last Number).

CLIMATE.

Ozone is an indispensable aid to the successful treatment of pulmonary tuberculosis. Cities, which have been cleared of all forest growth are not the ideal locations for the consumptive to dwell in. Vegetation, in healthy and luxuriant growth, absorbs the carbon dioxide and gives out oxygen. Other elements also enter into the question of climate for consumptives, such as dryness of the air, altitude and drainage.

Without entering into a discussion of this subject it may here be stated that the only way to test a given location recommended a phthisical person to reside in, is for such an one to try the various localities, if practicable, and make a permanent abode in the one which agrees best with his individual constitution. Colorado, as a health resort for consumptives, is no place for a victim of the third stage of the disease. Fibroid phthisis and bronchial irritation, on the other hand, do not contraindicate residence there. Except in excessively high altitudes the liability to hemorrhage is not greater than in other localities.

North Carolina is fast coming to

the front as a health resort for the tuberculous, and properly, too. The region in and around Southern Pines presents all the advantages of climatic regularity desirable in any stage of the disease. The soil is sandy, the air dry, an invigorating feeling exists from the ozonized atmosphere, and, being situated in the midst of the pine districts of North Carolina, there is every element conducive to health in the locality.

Southern California has long been one of the most famous health resorts in America. Its balmy atmosphere, absence of dampness and equable temperature make it a very desirable place in which to reside. Other localities might be mentioned, but of these the writer has personal knowledge.

The application of oxygen inhalations, while of some value in the treatment of phthisis, is by no means as satisfactory as the residence in ozonized atmospheres—the probable reason of this being that oxygen given by inhalation through an apparatus cannot be constantly applied, and the good that results, for a few hours after this mode of administration has been employed, is more than counterbalanced by the necessity of breathing the normal atmospheric air of the locality of residence. In other words, the oxygen is not applied a sufficient length of time to do more than temporary good. Could a room be so arranged to furnish the patient a continuous ozonized atmosphere the results of the cabinet method of treatment might be improved.

HYGIENE AND EXERCISE.

Important as are proper diet and air for consumptives, no less so are regulated exercise and hygiene. It

is a well-known fact that the more a phthisical person can live out of doors the better are his chances for recovery. Protective clothing should always be worn next the skin. A daily plunge bath in cool water followed by invigorating friction of the skin with a coarse towel conduces to free action of the sweat glands and assists active elimination.

Moderate dumb-bell exercise, or with chest weights, assists in establishing freer circulation. Fatigue should not be encouraged in the performance of these duties, but the patient is to be instructed to stop short of weariness. Lung development should be practiced by drawing in air through a quill until the lungs are fully inflated, then allowing the air to be as gradually expired.

An important hygienic point in the treatment of tuberculous cases is proper clothing. A great number of consumptives think they must clad themselves heavily, especially about the chest, and, with this unfortunate idea, they generally wear two or three undershirts of wool, in addition to a chest protector. The result is that the skin of the chest is kept in an unnecessary state of excessive perspiration, which renders an individual the more susceptible to contract numerous "colds." The whole body should be evenly and warmly clad; silk and wool flannel to be preferred next the skin. Severity of weather to an extent demanding excessive weight of clothing indicates that a patient should seek a warmer clime for a residence.

Out-of-door life is essential for the welfare of phthisical persons. The sudden changes in temperature experienced by those who live in our northern districts, caused not only by storms, but by the relation between in-door and out-of-door heat, imply additional dangers to the contraction of "colds." For this reason, if for no other, should the consumptive live in warm climates where he can remain in the open air as much as possible.

Sea voyages are useful in a proportion of cases. The exposure and out-of-door life, necessarily led in a long sea trip, are very beneficial.

MEDICATION.

Elimination is the first principle to consider in the medicinal treatment of phthisis, and this relates with the extent of pathological changes which have taken place in a given case. It is essential that an obstruction, wherever it is, be removed. Elimination does not necessarily imply that associate excrementory organs must be called into excessive activity in order that the system may be relieved of stagnant waste. The chances are that good results from this practice will be wanting. Elimination must come gradually by judicious employment, from time to time, of agents which will promote absorption of the pathological agent obstructing. Nutritious elements causing obstruction by becoming excess of waste must be avoided. On the other hand, oxidation and organization of new tissue should be encouraged. Cure of tuberculous deposits will come by suppuration and absorption, and for this reason we need alteratives, because such pathological changes exist.

To a large degree cure can be accomplished by dietetic and climatic treatment tending to advance nutrition.

One of the most satisfactory methods of elimination and alteration which have been given the profession in late years bearing on this disease is a formula advocated by Dr. Barclay, of Pittsburg, and consisting of the bromide of gold and arsenic. Arsenic is a well-known alterative in phthisis and highly efficient as a tissue builder. The late Dr. E. A. Wood presented the therapeutic value of this formula, in all wasting diseases, two years back, in a paper before a Western medical association, the subject of which was so thoroughly circulated about the country that its quotation here is unnecessary. Practical experience with this formula bears out all the claims made for it. It is not to be considered as a specific for tuberculosis, in any sense of the word, but that it is an active eliminator and alterator there can be no doubt in the minds of those who have used it.

Iodine has long been established as useful in the treatment of tuberculous conditions. The syrup of hydriodic acid, as prepared by R. W. Gardner, gives the most serviceable form for internal administration, as it is less irritating to the stomach. Locally iodine may be applied to the lung area by inhalation with ether. Dr. Garretson advocates a few drops of the compound tincture of iodine in equal portion of sulphuric ether, to be held in the palm of the hand and placed close to the nose, when the vapor of the ether inspired will carry the iodine to all accessible portions of the lung.

Other alteratives may be employed with benefit when indicated.

Symptomatic medication for pulmonary tuberculosis, as with most chronic ailments, is directed to a variety of complications which arise during the course of the disease. For the indications in which it is necessary to employ symptomatic medication the physician is to be governed by the individual case in hand. As a rule, the least medication employed is best, attention being directed to nutritional and climatic treatment.

Catarrh of the stomach has been mentioned and its treatment indicated. Catarrh of the nasal passages may be efficiently combated by a diluted hydrozone spray or Carl Seiler's formula. In acute exacerbations of this affection I have seen good temporary results from the employment of the following formula:

R. Cocaine hydrochlor.	grains vi
Bismuth subcarb.	drachms, ss
Talc.	drachms, iss

M. thoroughly.

Sig. Snuff every four hours.

In chronic catarrh a mild astringent powder or boric acid may be added to the above. Atomization of medications apply to the topical treatment of nasal catarrh. Mr. Marchand has invented an efficient instrument with an attachment for applying ozone, made from glycerine and peroxide of hydrogen.

Anorexia, dependent on a catarrhal state of the stomach or the general debility of phthisis, is not to be

taken as an indication that food is not required. This state is often overcome by treatment of the stomach, combined with small but frequent feedings. Such agents as promote digestion, papoid, pepsin, pancreatin and one of the dilute mineral acids, aid the assimilation of food in this condition and indirectly promote appetite. Gaseous eructations call for the employment of bismuth in addition to the above.

Attacks of pleuritic pain require sinapisms to the chest wall and morphia. When the latter is used less discomfort will be experienced afterward if atropia is combined.

Fever, unless excessive, rarely requires treatment. The employment of phenacetin often prevents active fever and quiets the nervous system beside.

Night-sweats, when excessive, tax the patience of the physician, and it will be found that no drug can be relied upon to prevent this disagreeable phenomenon in every case. Among those holding an efficient position are ergot, atropia, aromatic sulphuric acid and agaric.

Cough does not call for active treatment. Occasionally, when hard and dry, quieting preparations may be necessary. Nauseating expectorants should not be given. Paregoric and the preparations of ammonia are sometimes beneficial. When cough is accompanied with abundant expectoration I have seen good results from the smoking of pure cubebs; the smoke being drawn well into the lungs. Even ladies soon become accustomed to the use of this remedy.

Bronchial hemorrhage requires active treatment. When due to a congestive state, remedies applicable to the lessening of blood pressure are indicated. If due to ulceration contraction of the lumen of blood-vessels should be encouraged. During the hemorrhage common salt in large doses is generally efficient. Ergot, or ergotin, hypodermically administered, acetate of lead or tannic acid are recommended. Temporary ligation of a limb is often useful in controlling hemorrhage. This should only be employed during the presence of the physician.

Symptomatic medication, in this article, has only been outlined. The circumstances of the patient and the peculiarity of this disease require that the physician be one whose sound judgment and educated sense is equal to the task of meeting any symptomatic indication with the most efficient remedy at his command. The most hopeless cases to treat are among the poor, where poverty deprives the victim of phthisis of the necessities for even palliative treatment.

The primal thought must be directed to the restoration of perfect elimination, especially in the localities obstructed. For this reason the consideration of antiseptic medication has been omitted, the author recognizing the fact that very little good has been accomplished through this plan of treatment. Certain drugs of the antiseptic class have seemed beneficial at times, especially to appetite and digestion. Their action may in some degree be attributed to stimulation of elimination.

In cannot confidently be expected that any specific will ever be found for the cure of this disease. Phthisis arises from a combination of conditions which require a combination of therapeutical measures to eradicate. Good sanitation and cleanliness are essential for health among the well, and much more important are these virtues among the sick.

718 Betz Building, Philadelphia.

(The End.)

Opposition to the use of the antitoxine treatment for diphtheria has already taken an organized form in England. A deputation, headed by Lord Coleridge, has protested to the authorities against its use in the hospitals, on the ground that "public money ought not to be devoted to experiments in psychology."

Flammarion says the world is cooling off, and that Europe has lost two degrees this century.

UNUSUAL TYPES OF CHRONIC ABDOMINAL HERNIA.

BY THOMAS H. MANLEY, M. D.

Visiting Surgeon to Harlem Hospital.

(NEW YORK.)

The common, ordinary varieties of umbilical, inguinal and femoral herniae, when fully matured are usually readily recognized, and safely treated by some mechanical appliance. There is, however, a deviation of the development sometimes witnessed, in various areas of the abdominal walls, which, while it is wanting the clinical likeness of rupture, is yet, anatomically, quite identical. To this aberration of structural composition in the primordial stages of development, with a few notes on exomphacete, my attention will be now directed; though, as the subject is so large and important, nothing more than a rudimentary sketch of it can be under-

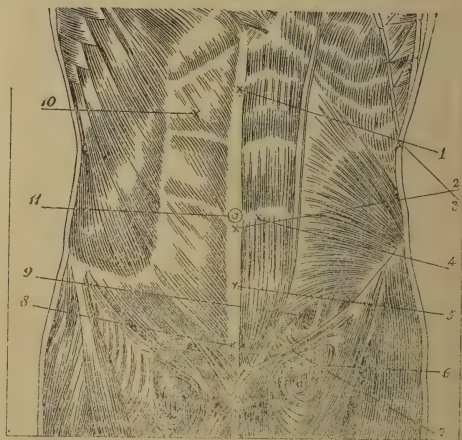


Fig. 1. Normal Openings in Abdominal Walls, with Anatomical Areas of Diminished Resistance (Diagramatic).

1. Median line at divergence of Recti. 2. Right Umbilical Zone. 3. Petit's Triangle. 4. Left Umbilical Zone. 5. Median line. 6. Obturator Foramen. 7. Femoral arch. 8. External Ring. 9. Internal Ring. 10. Right Hypochondrium. 11. Navel opening.

taken with the limited space at my command; and, therefore, my aim will be accomplished if these few notes may induce others to take up the subject and present it to the profession in fullness and detail.

There are many fragmentary reports of the class of cases here, considered in surgical literature, especially, since modern art has so enormously reduced the death rate in abdominal operations; but I am familiar with no author who has attempted to systematically analyze* them in a methodical way except Zabe, the preface to whose brochure is ably written by the eminent Dujardin Beaumetz, of Paris.

To this valuable contribution I am much indebted for an elucidation of a condition which formerly seemed exceedingly obscure to me, and from it four of these illustrations are borrowed.

ETIOLOGY OR CAUSATION OF LOCALIZED, OF ECTOPIC VISCERAL (DIMINUTIVE OR COLOSSAL VENTRAL HERNIA).

First in order, comes defective development. The parietal peritoneum may be, in places, thinned or perforated, so that when on moderate strain or effort, a fringe of omentum insinuates itself and becomes fixed for the time, or advances onward.

When the peritoneal defect is protected by an osseous or tendinous wall, or advances towards the centre of a thick mass of muscle, it is restrained from the advance. It is only at, or in close contact with the umbilical opening, or through the inter-muscular spaces, that those irregular hernia are generally observed.

Statistics seem to prove, that they are more commonly encountered in women than in men. This is because, perhaps, the muscular development over the abdominal planes is not so strong in females as in males, and also for the reason that the parietes are subjected to great strain, which is sometimes succeeded by weakening or laceration of the ab-

dominal muscles in parturient women.

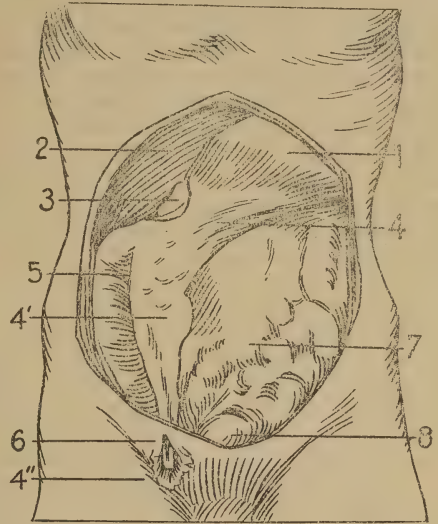


Fig. 2. Gastro-Intestinal Bridle of Omentum caught and dragged through the internal ring.

1. Stomach. 2. Liver. 3. Gall-Bladder. 4-4-4. The great omentum, carrying the stomach down with it. 5. Ascending colon. 6. Inguinal hernia, consisting of intestine. 7. Mass of elongated intestine and mesentery. 8. Bladder.

Polysarca, an excessively fat omentum, or elongated mesentery, an excess of intestine, inter-abdominal pressure, and probably, various abdominal traumatism each, and all lend their influence in the development of these protrusions.

MORBID ANATOMY.

From the segmentation of the vitellus in the very early stages of foetal development, assymetry and imperfect formation of some region or organ of the foetus is evident, on minute inspection, in very many instances.

In the early stages of development a portion of the intestine protrudes through the umbilicus, where the first intestinal convolutions appear. It is at this site that we will most often witness congenital herniae; which, as a rule, disappear soon after birth, to return, however, later in many females.

The lateral abdominal walls advance from the sides of the spine and fuse, later, evenly in the

*Docteur Zabe, *Dyspeptiques et Obeses Du Ventre*.

sagittal plane. The mesentery is primarily formed of two perpendicular folds, attached to the spinal column. A portion of the peritoneal membrane, in a quadruple fold from the stomach, extends to the colon, to enclose the floating viscera, as process of formation advances. During the infolding process, the omentum may form adhesions with the parietal peritoneum, or make its way in epiploical masses through the muscular girth of the belly.

ble. They may thus augment in size, but there is little hope of their spontaneous recession, as their advance is in one direction only. They are not uncommonly incarcerated, and strangulation is one of the serious accidents which may at any time, on great strain, set in.

These extrusions are almost invariably a source of distress and misery to the afflicted.

The omentum is everywhere freely ramified with filaments of the vagus.

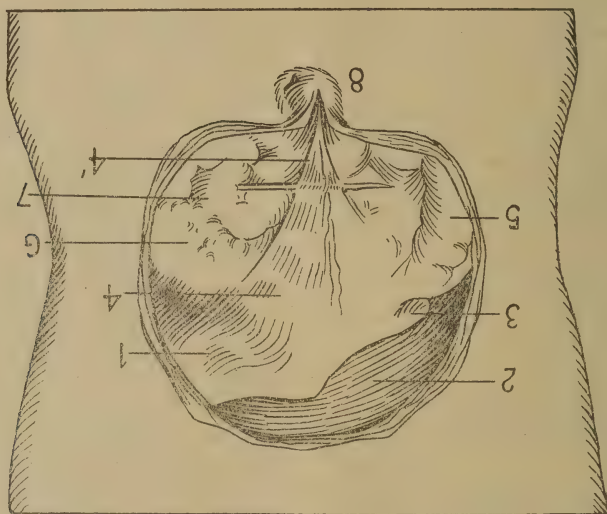


Fig. 3. Gastro-Umbilical Bridle.

1. Stomach. 2. Liver. 3. Gall-Bladder. 4. A gastro-umbilical apron of omentum implanted in umbilical opening. 5. Ascending colon. 6. Mass of epiploon of small intestine. 7. Small intestine. 8. Longitudinal opening in navel aperture.

These extrusions consist almost invariably of omental masses of various density and contour. For instance, in some we will find simply a rounded, hard mass of fat, while in not an inconsiderable number the omentum makes its way through, or partly through, the abdomen, to branch out into rootlets, which take a most tortuous course, and, by adhesive inflammation, become so incorporated with the adjacent tissues as to be quite inseparable. These epigastric, umbilical or ventral herniae, having no independent, serous envelope, are always devoid of a sac.

In consequence of their firm adhesions they are invariably irreduc-

and sympathetic, and, therefore, extremely sensitive to tension or pressure. The stroma of the mesentery is made up chiefly of lymphoid, adipose and loose fibrous connective tissue, highly prone to inflammatory changes.

In time, inflammation, starting at the periphery, extends backward, towards the deeper organs. The sensitive, serous wall of the bowel acquires adhesions and follows along the omental stalk, which now keeps up a constant "tug" on it, until the yielding portal finally gives and allows a knuckle of intestine, or part of its wall to slip through, and perchance, become nipped in its em-

brace. It is well to always bear in mind what may be regarded as an axiom, in hernial pathology, viz., that in every case of strangulation, succeeding an epiplocele we will invariably find that the intestine constitutes part of the hernial mass, as a secondary extrusion.

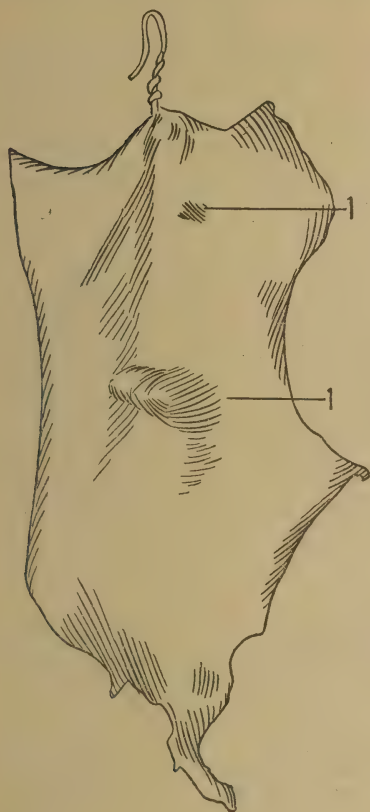


Fig. 4. Hernial Pouches (after Dupuytren).

1-1. Pouches.

SYMPTOMATOLOGY AND DIAGNOSIS.

The symptoms in this class of hernial protrusions are chiefly of two orders, viz.: First, those of a functional character, and somewhat intermittent, according to condition, age and occupation. These are often exceedingly ambiguous and deceptive, unless we apply more than ordinary caution, and penetration to

interpret them. Let it be borne in mind, that their distinctive peculiarity is their reflex character. The patient has pain in the back, an intercostal neuralgia, or dragging in the loin, a feeling of emptiness in the epigastrium. She may have nausea, constipation or diarrhea.

One woman who came under my care having a small ventral hernia, through the right semi-lunaris, had been actively treated for gall-stones; another—a female, too—had a nodular omental mass near the anterior spine—superior—of the ilium, and was in great pain; was supposed to have the omnipresent appendicitis; while an old man, who had a hernial tumor, about the size of a small marble, coming out directly through the centre of the tendon of the rectus, above the pubis, so complained of vessional distress, that he was sup-



Fig. 5. The Ideal Navel.
(after an antique Venus).

posed to have cancer of the bladder.

In order to make an accurate diagnosis in these cases, and avoid every source of error, not only must the clinical history be most thoroughly inquired into, but we should not pronounce an opinion until all the abdominal areas have been examined with precise exactness and completeness. Urgent symptoms here, mean serious trouble.

In the second class, violent and sudden pain with vomiting, points to strangulation. Let us be cautious that these symptoms are not misinterpreted; i. e., that they are not mistaken for other ailments; or, that without a proper examination we do not pronounce the symptoms as attributable to internal strangulation, and further imperil life by an abdominal-section, while the real seat of the lesion is in the abdominal wall, which may be relieved by a much more simple operation.

TREATMENT.

When there are no constitutional disturbances from these erratic protrusions of the abdominal viscera nothing need to be done, except to avoid anything which calls for severe straining. Constipation should be prevented. When they are a source of distress or inconvenience we may treat them by local support and bandaging, which, failing, we should not hesitate to recommend operative measures.

Surgical therapy, properly instituted, should entail little danger to life here, and is always radical and permanent in its effects.

It goes without saying, that in the event of strangulation, stercoraceous vomiting, always points to the intestine being compromised, and that an immediate celotomy with radical care superadded must be at once resorted to, as the only possible hope for our patient.

All strangulated herniae, through the navel opening, or through any part of the abdominal areas above a horizontal line, drawn through it are always of greater gravity than those in the lower zones; because the jejunum is that segment of the intes-

tine most liable to be engaged here, and it is well known that the nearer the strangulated coil is, to the stomach, the greater is the danger to life from collapse and shock.

115 West Forty-ninth st.

COMMON MEMBRANOUS SORE THROAT.

The correctness of the position taken by Professor J. Solis-Cohen, Sir Morell Mackenzie and other authors, as to the existence of membranous sore throat not diphtheric in character, has come to be universally admitted, and the claims advanced for certain methods of treatment in diphtheria proved to be based upon erroneous diagnosis. A recent illustration of this fact has come under notice at the Laboratory of Bacteriology, where cultures from three cases of membranous sore throat, much resembling diphtheria in appearance, in two of which there was high fever accompanied with constitutional depression, proved to be free from Klebs-Loeffler bacilli.—Phila. Polyclinic.

THE TREATMENT OF CHRONIC ULCERS BY THE ELECTROSTATIC BRUSH DISCHARGE.

Marquant (Arch. d'Electr. Med., August and September, 1894) sums up his experiences in 22 cases of chronic ulcer treated by the brush discharge as follows: The treatment greatly assists the healing of the ulcers. In young people whose general health is good the progress is rapid, the ulcers at once assuming a healthy aspect and proceeding to cicatrization. In patients who are older, or of an unsound constitution, the improvement does not so soon become evident, but nevertheless cicatrization is promoted. The cases, chiefly old varicose ulcers of the leg, are reported at length, and the results obtained seem to have been most striking. Treatment was repeated twice a week. The positive pole was used.

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THE CARE OF THE NAVEL.

Doktor (Archiv fur Gynakologie, Bd. xlv., H. 3) reports his experience relative to the treatment of the umbilicus in new-born infants and the prevention of infections. "In new-born infants the navel forms a columnar projection of the skin, on the top of which the cord is attached—a sharp line of demarcation, the navel ring, separating the cord from the skin. On its margin are numerous vessels that go to the border of Wharton's jelly, but do not enter into it. When the cord is ligated its tissues lose their viability, and must separate and fall away, leaving the wound covered with a living structure. We must regard the navel as a physiological wound of the abdomen, of the new-born, its healing differing in no way from that of any other wound, the only peculiarity of the process being the topography of the wound. In typical cases it heals by first intention. This small wound is specially liable to infection and re-

sultant maladies, light or severe:— (1) Because of its condition; it is not merely a wound of the abdominal skin, but also of its wall and in closest proximity to the abdominal membrane (peritoneum), which is very susceptible to infection. (2) The peculiarity that three great vessels lie free in this wound. (3) The third great factor tending to infection is the disproportionately large mass of dead tissue—the remains of the cord. (4) Again, this wound is peculiarly inclined to an excessive formation of granulations. (5) The frequency of development of anomalies and aberrations of the umbilicus also predisposes it to disease. According to Eros, 68 per cent. of umbilical wounds do not heal in a normal manner; and of these cases 45 per cent. suffer from fever. How often these cases terminate fatally is not known. In treating the navel the aim is to obtain healing without infection. The ordinary method is to simply ligate the cord some eight to ten centimetres from the body and wrap it in an oiled rag, after careful disinfection with sublimate solution, 1 : 1000, and then binding it to the abdomen with a bandage. At each bathing of the child the cord is washed, and if there be not much secretion a new bandage is applied, or a cotton wad is placed over the navel first. Too often cleanliness in the latter matter is neglected by the nurse. The author omitted the oiling of the rag in the above method, as it hindered mummification. * The temperature was taken twice daily. Iodoform was applied to the wound, or, if needed, a weak carbolyzed wash. With the above treatment, 35 per cent. of cases had fever, and of these 16 per cent. showed infection. The plan was then changed. The cord was removed as early as possible and all wetting omitted. The bandage was changed daily. After this, 25.8 per cent. showed a rise of temperature, and of these 10 per cent. had infection. Further improvement resulted when efforts were made to hasten mummification of the cord. Ligatures applied closely to the belly were next tried, the stump being one centimetre long. This gave 11.88

per cent. of fever and 3.46 per cent. of infection. As a general rule, fever occurring during the healing of the navel is due to infection, notwithstanding the failure of local symptoms, and especially the coincident frequent digestive disturbances cause no fever. The author summarizes the treatment of the umbilicus as follows: (1) Cut the cord as close as possible. (2) The bandage once applied should not be changed except for good cause, and preferably the bath should be omitted."

This method of treating the umbilical cord we advocated several years ago, in a paper read before the American Medical Association. When dry antiseptic cotton is used to wrap the cord in there will arise no odor during its desiccation.

The bath should be omitted after the cord has been once dressed and the latter should remain undisturbed. No oily rag should be employed as a dressing.

THE TREATMENT OF TRAUMATIC STRICTURES OF THE URETHRA AND PERISISTENT FISTULAE IN PERINEO.

Mr. Pearce Gould, in a recent issue of the "Medical Press," contributes an important essay on the treatment of traumatic strictures, in the perineum, and advises that in every instance we should cut down as soon as urinary extravasation appears, seek for the divided ends of the urethra and suture it; then close in all the overlying tissues, layer by layer, with a view of securing primary union. He reports two cases, both treated this way, by himself, with the most gratifying results.

This operation was first successfully performed in America by our distinguished countryman, Dr. W. A. Wile, of Danbury, Conn.

Chronic urinary fistula, after stricture or abscess, has heretofore been the bane of surgery; but Guyon, of Paris, and Manley, of New York, have both reported the most rebel-

lious cases of this distressing infirmity as successfully treated by resecting an area of the cicatricial urethral tissue, and then drawing the separated ends together and restoring the continuity of the canal.

It is not generally known that the urethra possesses great longitudinal as well as lateral distensile properties. By taking advantage of this knowledge we may, with antiseptic precautions and skillful manipulating of our cases, treat and cure the most inveterate of perineal urinary fistulae.

The insect, according to Professor Smith, State Entomologist of New Jersey, has no internal skeleton, but carries its "bones" all on the outside. Insects differ among themselves; thus bugs get their living by piercing and sucking, whereas beetles get theirs by biting and chewing. To kill the one we must choke or strangle it, whereas, with the other, we can compel it to swallow the poison. Thus there are, therefore, two sorts of insecticides—the contact poisons for bugs and the stomach poisons for beetles. No one insecticide can meet both conditions, and any one advertised to do so may be set down at once as a fraud. Stomach poisons are Paris green and London purple, otherwise known as the arsenites. Contact poisons are any fine dust or film that will cover over or clog the breathing tubes; thus, whale-oil soap, or pyrethium powder, or ground cinnamon, or tobacco dust. "Other things being equal," said Professor Smith, "dry or powdered insecticides are the more effectual the finer they are."

Mortuary tables show that the average duration of the life of women in European countries is something less than that of men. Notwithstanding this fact, of the list of centenarians collected by the British Association a fraction over two-thirds were women.

Correspondence

TO STUDY CLIMATOLOGY.

Washington, D. C.

We have received from the Weather Bureau of the U. S. Department of Agriculture, Washington, D. C., the following notice:

"The interest manifested by every class of people in the subject of climate and its influence on health and disease has determined the Honorable the Secretary of Agriculture, through the medium of the Weather Bureau, to undertake the systematic investigation of the subject.

"It is hoped to make the proposed investigation of interest and value to all, but especially to the medical and sanitary professions, and to the large number of persons who seek, by visitation of health resorts and change of climate, either to restore health or prolong lives incurably affected or to ward off threatened disease.

"The study of the climates of the country in connection with the indigenous diseases should be of material service to every community, in showing to what degree local climatic peculiarities may favor or combat the development of the different diseases, and by suggesting, in many instances, supplementary sanitary precautions; also by indicating to what part of the country invalids and health seekers may be sent to find climatic surroundings best adapted to the alleviation or cure of their particular cases.

"The hearty co-operation of the various boards of health, public sanitary authorities, sanitary associations and societies, and of physicians who may feel an interest in the work, is asked to achieve and perfect the aims of this investigation.

"No compensation can be offered for this co-operation other than to send, free of cost, the publications of the Bureau bearing upon climatology and its relation to health and disease to all those who assist in the work.

"Co-operation will consist in send-

ing to this office reports of vital statistics from the various localities. That these reports may be of value, it is evident to all that they should be accurate and complete, and be rendered promptly and regularly. Blank forms of reports have been prepared so as to occasion as little trouble and labor as possible on the part of the reporter, and will be furnished by the Bureau on application.

"At the very beginning of the investigation it is not possible to outline precisely the channels through which the results obtained will be made public, but it is hoped to publish soon a periodical devoted to climatology and its relations to health and disease. The publication will probably resemble in size and general appearance the present Monthly Weather Review, the subject matter being, of course, different.

"More detailed information will be furnished on application.

"MARK W. HARRINGTON,
"Chief of Bureau."

Surgery.

DR. T. H. MANLEY, New York.

COLLABORATOR.

EXTIRPATION OF VOLUMINOUS ANEURISMS.

M. Quenu presented a man, aet. 36, on whom he operated a year ago for a voluminous aneurism of the external iliac artery on the right side, and a fortnight later for an inguinal aneurism on the left side; these two aneurisms were treated by the method of extirpation with complete success. The patient, a clown by profession, was able to resume his work in October last. The debut of these tumors dated two years back; the right was of the size of a child's head, and occupied the iliac fossa and portion of the lower outlet. The left was smaller and situated across the Fallopiian ligament. Collateral circulation was quickly established in both limbs,

and no bad symptoms were observed, although the saphena vein on one side had to be sacrificed.—Med. Press.

TREATMENT OF SYNOVIAL CYSTS OF THE WRIST.

Professor Duplay, of the Hotel-Dieu, treats synovial cysts of the wrist by the simple method of injecting a few drops of tincture of iodine by means of the ordinary subcutaneous syringe. Without emptying the contents of the tumor, he injects from 6 to 10 drops of the tincture into the centre of the cysts and applies a compressed bandage. Generally one operation has been sufficient, but in certain cases he has been obliged to renew the injections twice or three times. On the third or fourth day he removes the bandage, when the tumor is found to have considerably diminished in volume. M. Duplay has never seen any inflammation as a consequence of the iodine. At the end of 10 days the cyst is entirely shriveled up.—Med. Press.

HOW TO TREAT A GONORRHEA.

M. Routier gave last week an interesting clinical lecture on the above subject at the Hopital Necker in which he rendered testimony to the researches of MM. Lavaux and Janet, who seemed to have rightly understood the proper indications in the treatment of such an affection. If the gonorrhea is still in the acute stage, M. Routier advises simple antiphlogistic treatment, but as soon as this stage is passed, and the malady has become subacute, he commences the treatment as followed by Janet with so much success, which consists in washing out by a continual stream not only the anterior, but also the posterior portion of the urethra. To practice these injections a reservoir of the capacity of two quarts is employed filled with a weak solution of permanganate of potash (one in two thousand). A tube of india rubber is attached to this reservoir two yards in length, and terminated by a small cannula in glass. The patient urinates im-

mediately before using the injection in order to expel any mucus accumulated in the canal. The reservoir is placed at a height of about five feet above the penis of the patient, and the cannula is inserted into the urethra; the liquid penetrates up to the sphincter, where it is arrested and flows back, thus washing out the anterior portion of the canal. The patient is then recommended to close the meatus by pressing on it with his fingers; the liquid finding no issue triumphs over the obstacle presented by the sphincter and penetrates into the bladder. The current is arrested when the patient feels a desire to micturate. The operation can be recommended once or twice at each seance, and renewed the following days. At the end of a week a cure is generally effected. In order to make sure that the patient is really cured Janet recommends that he should drink a quart of beer, that beverage being infallible to reproduce the "running" when improperly cured.—Med. Press.

HYDROCELE MULIEBRIS SIMULATING STRANGULATED INGUINAL HERNIA.

Liermann (Deutsche Med. Wochenschrift, November 15, 1894) related this case, which occurred in a woman, aged 38. She had noticed for three years a swelling in the right groin. In woman, as in man, a patent condition of the processus vaginalis is most frequent on the right side. The swelling was irreducible, and she had local tenderness, vomiting, and occasional constipation for a month. Resonance was clear on percussion. On admission to hospital the bowels were opened after a dose of castor oil. The usual incision was made in the inguinal region. A swelling the size of a hen's egg was exposed; on puncture a pale yellow fluid escaped. The surgeon thought he had opened the peritoneum, but it was simply the distended inguinal canal which contained two thin-walled cysts, each of the size of a hazel nut, and fixed to the canal by a short pedicle. They communicated with

each other by a short channel, through which a sound could be passed, and contained clear yellow fluid. They were excised, and the inguinal canal closed. The patient speedily recovered.

Therapeutics.

DR. LOUIS LEWIS, Philadelphia.
COLLABORATOR.

GUAIACOL CARBONATE.

Holscher (Berl. klin. Woch., December 3, 1894) has used this substance with good results in 100 cases of phthisis in addition to the 60 cases reported some time ago (Epitome, January 9, 1894, par. 40). He first draws attention to the advantages of this preparation over creosote or even pure guaiacol. The digestive functions are not disturbed. The amount absorbed into the blood is small and the action therefore mild. The author thinks that the poisons circulating in the blood of the phthisical are in this way made inert. He mostly gives 2 to 3 g. in the day in two doses; in cases where no result is apparent he proceeds slowly to 6 g. He has seen striking improvement in some advanced cases of phthisis. The appetite is increased, and the assimilation of food promoted. Details are given in 6 cases, some of which were advanced when they first came under observation two or four years ago. Guaiacol carbonate is practically useless in acute miliary tuberculosis.

KOLA.

The kola nut is bound to take as prominent a position in the materia medica of this country as it has in other parts of the world.

Its habitat is Africa. Its transplanted home by cultivation is the West Indies, and the natives as well as the medical profession of these sections have long recognized in the kola nut a great aid in performing feats of labor, tests of strength, or sustaining life in disease.

It resembles in its action coffee and cocoa, only in a more prominent

degree, and without any of the depressing influences which too often follow coffee drinking and the administration of cocoa. The active principles are said to be caffeine theobromine with an alkaloid peculiar to itself, and which is not yet fully described and isolated.

Aside from its value to the brain and muscle worker it is simply invaluable in the sick room.

It helps tide over the crises of disease, sustains the strength of the patient, does not interfere with nutrition, and some authors even go so far as to say that it assists the process of digestion.

In shocks, either due to accidents, traumatism, operations, syncope or fright, it is of great value, and will prove the surgeons' good friend as well as the physicians'.

In pyelitis it has done good service and is useful in various forms of heart disease, especially smokers' heart. In nervous prostration and nervous irritation it performs a service of inestimable value. In fact kola will prove, we are confident, one of the most valuable additions to our therapeutic armamentarium.—New England Med. Monthly.

EFFECT OF MASSAGE ON THE CIRCULATION.

Lauder Brunton and Tunnicliffe (Jour. of Phys., December, 1894) record the results of some careful observations on the effect of massage on the circulation. The experiments were undertaken in order to determine (1) the changes occurring in the circulation in a given group of muscles during and after massage; (2) the effect of massage of a large muscular area on the general blood pressure. The experiments were carried out on cats, and the method used was the determination of the amount of blood passing in a given time from the efferent vein. The general results obtained are: (1) that during massage the flow of blood is increased through the muscles; (2) immediately after the cessation of massage an accumulation of blood occurs in the massage muscles, which is followed by an increased flow

through them; (3) massage of a large muscular area causes just a slight rise of blood pressure followed by a fall which may amount to one-fifth of the initial blood pressure. Both during and after massage of muscles a lowering of peripheral resistance in the corresponding area takes place, and hence more blood is propelled at each heart beat from arteries to veins, and a fall of arterial tension ensues. The results are carefully compared with the effects of alternate compression and release of the arteries, and also with the effects of simply firmly grasping the muscles, both of which must be factors in the general result of massage. It was found that in each of these cases a rise and fall of pressure took place, but the effect was more transient. Gentle kneading was found to have more effect in causing a fall of blood pressure than either compression and release of both external iliac arteries or of the muscles of both thighs.

ON THE USE OF ANTIPYRIN IN LARGE DOSES.

By T. McCall Anderson, M. D.

The writer advocates the use of very large doses of antipyrin in certain neurotic cases. He says that personally he has had hardly any experience of its deleterious effects—at least of a serious nature—when employed with due precautions. He details the case of a boy, aged nine years, who had suffered for the previous two and a half years from severe fits of a hysterio-epileptic character, sometimes as many as 30 or 40 attacks occurring in a day. The treatment consisted of rest in bed, regulation of the bowels, and the exhibition of antipyrin in gradually-increasing doses, commencing with five grains, thrice daily. In three weeks he was taking twenty-five grains three times a day, with complete cessation of the attacks. The dose was then slightly lowered. The lad was dismissed from the hospital in two months as quite well, and it was reported later that there had been no

recurrence of the attacks. In another case a lad of 13 years, suffering from choreic movements of the right side, received under gradually increasing doses as much as 50 grains thrice daily. He left the hospital in six weeks quite well. In another violent case improvement was very rapid under similar treatment. Dr. Anderson sums up his experience in the following aphorisms: 1. Antipyrin is not the dangerous drug that some observers have led us to suppose. 2. It may be given with safety in large doses, but the initial dose must be small, and it must be slowly and cautiously increased under careful supervision. 3. In large doses it often yields surprisingly good results, and in chorea it is the only medicine from which cures may confidently be expected.—British Med. Journal.

THE VALUE OF A DOCTOR'S HEALTH.

Dr. W. S. Lumpkin, of Atlanta, Ga., sued that city for \$10,000 damages, alleging that the injurious fumes from an open sewer had ruined his health. The jury found in his favor to the amount of \$400.—Med. Record.

Medicine.

DR. E. W. BING, Chester, Pa.
COLLABORATOR.

THE DIAGNOSIS OF DIABETES AND GLYCOSURIA BY EXAMINATION OF THE BLOOD.

Bremer (Centralbl. f. d. med. Wissensch., December 8, 1894) describes a modification of Ehrlich's method of staining cover-glass preparations of blood with eosin and methyl blue. By this method of staining in normal blood, the red blood corpuscles appear brownish red, but the color varies from a clear reddish brown to a deep chestnut brown. The nuclei of the leucocytes stain blue. Bremer found that in diabetes and glycosuria the red blood corpuscles either remained completely unstained, or

they were simply tinted light yellow or greenish yellow. Only occasionally a small peripheal zone of the red corpuscle was tinged slightly red. Other minor changes were found in the leucocytes. With acid fuchsin and other so-called acid dyes the red corpuscles of diabetic blood stained just in the same manner as those of normal blood. It was only eosin which did not stain them. In order to determine whether this loss of staining affinity for eosin was due to the abnormal amount of sugar in diabetic blood Bremer treated cover-glass preparations of normal blood with a solution of sugar. But he found that the red corpuscles still stained with eosin, as in normal blood. If, however, a cover-glass preparation of non-diabetic blood was floated for 25 to 30 minutes in a diabetic urine, the red corpuscles failed to stain brownish red with eosin; they remained unstained or were only slightly tinted yellow or greenish yellow, as in diabetic blood. But the red corpuscles in a cover-glass preparation of non-diabetic blood, treated with urine free from sugar, stained well with eosin. In glycosuria produced artificially by the administration of phloroglucin for three days the red corpuscles failed to stain with eosin, as in diabetes.

ULCERATIVE ENDOCARDITIS AND ACUTE ARTICULAR RHEUMATISM.

Leyden (Deut. med. Woch., December 6, 1894) first sketches the history of the bacteriology of malignant endocarditis. The cause of rheumatic endocarditis is not yet definitely known. This endocarditis is rarely (directly) fatal, and then only in a late stage, when the presence of micro-organisms is hardly to be expected. The fatal cases of rheumatic endocarditis may also be examples of a mixed infection, which possibility must be excluded. Although acute rheumatism is looked upon as an infective disease, yet bacteriological investigation has as yet only given uncertain results. In 4 of the author's 6 cases of acute

rheumatism a diplococcus was found in the vegetations quite different from other micro-organisms such as the staphylococcus, pneumococcus, etc. Gunther looked upon this micro-organism as a special one not hitherto described. Details are given of these 6 cases in which death took place somewhat early in the disease. In 2 of these cases there was ulcerative, and in 3 a vegetative or verrucous, endocarditis. In the remaining case there were extensive foci, both cellular and fibrous, in the myocardium, the valves being intact.

PNEUMONIA IN THE AGED.

Pneumonia in aged persons, according to Lemoine, should be treated by giving abundant liquid nourishment in broken doses, or quantities, soup, milk, eggs, peptone, meat juice, etc. He advises dry cups, the employment of tonics, alcohol, glycerophosphates, etc.

	Grams.
1. R. Brandy	40
Tr. Kola	10
Syr. Acacia	50
In teaspoonful doses during 24 hours.	
2. R. Glycerophosphato Soda. .6 grms.	
Tr. Nux Vom.	30 gtt.
Wine	100 grms.
Four teaspoonfuls a day.	

The necessity for strengthening the heart is met by caffeine and digitalis. Insomnia is treated by sulphonal or coderine. Chloral should be avoided. Diuresis should be encouraged.—Rev. de Therap.

Gallate of mercury in doses 5 cgms is advised in syphilis as being superior to other compounds of mercury.

HEADACHE IN CHILDREN.

This constitutes one of the most frequent of affections; they awaken anxiety, especially where there is any tendency to meningitis.

Headaches of "growth" are frequent in children who have grown fast in a relatively short time. They are accompanied with joint pains and swelling around the epiphyseal junctions, and frequently a slight degree of cardiac hypertrophy.

Rest is the best remedy. Headache is often due to overtaking the mental powers. Here again rest is

the cure, combined with regular exercise. Headache due to digestive disorders requires attention to the functional conditions combined with the use of baths and exercises.

Where disorder of the nervous system is the cause, as shown by hysteria, or epilepsy, antipyrin and bromides are useful.

Headache due to beginning meningitis is rebellious to all treatment. A possible cause of headache, which should always be considered, is syphilis, inherited. Chlorosis is also a cause of cephalagra, and is treated in the usual way by iron and hygienic means. Headache often results from Bright's disease also.—*Annales de Med.*

NEW ANTISEPTICS.

Phenocoll, used for wounds of all kinds in powder—watery solution, gauze or ointment. It equals iodoform in action, and is better, as it is odorless.

Argentamine, a combination of a silver salt with an organic base, which may be ethyldiamine, piperazine. Meisser calls argentamine the ethyldiamine phosphate of silver. This antiseptic does not coagulate albuminoids like most of the current antiseptics, and at the same time is more powerful than most of the others.—*Prog. Med.*

Electro-Therapeutics.

IN CHARGE OF
DR. S. H. MONTELL, New York.

A PLUNGE INTO ELECTROTHERAPEUTICS.

"CROSSING THE RUBICON."

Continuing upon a line of thought suggested by our last article, let us next suppose that a canvasser or advertisement in the "Times and Register," or catalogue, or clerical report or some other effective influence has

aroused an interest in the subject of electricity in the mind of an established physician. He has, perhaps, a difficult case on his hands, which nothing else seems to benefit, and he is induced to look into the possibilities of an agent he has heard about, but never tried. He has a large medical library and he naturally turns to it for basic facts. In a dozen text books on practice, therapeutics and materia medica, aggregating 12,000 or 15,000 pages, he has the great, good fortune to find a score or two of pages which enlighten him as he desires. He reads all about Anodes and Cathodes, Labile and Stable applications; Ohm's law, electrotonus, R. D. Ions, milliamperes, Daniell cells, volts and induction coils, primary and secondary currents, rheotomes and rheophores and various other text book technicalities. This is all very interesting, although a trifle indefinite, but several diseases are quoted which electricity is said to be "good for"—with acknowledgments to Erb, Duchenne & Co.—and he writes to a dealer for advice as to "the best battery to buy." The dealer probably sends an illustrated price list, which is a veritable mine of information. It offers batteries at assorted rates from \$7.50 to \$250. It pictures a great variety of electrodes and appliances, some of which have neither existence nor practical use outside of the illustration. The high-priced cabinets are attractive, of course, but the prospective purchaser reasons very fairly that as he is without experience he had better learn on a cheap battery and buy a better one after he gets more skill. Moreover, he may not like electricity after he tries it, and it will be cheaper to throw away a \$10 instrument than one worth \$100.

Still he wants a reliable article and will not be too frugal in regard to price. Let us see what the catalogue offers: Machine No. 1, price \$7, "made to meet a demand for a low-priced battery for domestic use."

This will hardly do, for if the "electrician" encounters one in the hands of a patient he must be able to compete with a better article. No.

2 is \$12, and is stated to be "a very convenient form of battery for a physician or family use. It has the rapid vibrator, gives three variations of the faradic current and is sufficiently strong for ordinary treatment."

This is quite promising, but here is No. 3: "More desirable for a physician, has a large coil, rapid vibrator, gives three variations of the current, is furnished with handles, cords and sponge electrodes for \$20 list or \$15 net cash." This evidently is the one to buy, and it is ordered C. O. D. The Rubicon is crossed. The mysterious plunge into electricity is taken. The battery arrives. The circular directions for starting it into action are carefully studied, and the doctor is ready for work. The first patient that comes in is a man with lumbago. He is at once stripped to his waist, placed face downward on a table, and the sponges, "thoroughly moistened," as per circular, are rubbed up and down his back till he declares he has no more pain. He gets up astonished, and the doctor is a proud and happy man.

For a few days his cases all seem to run to lumbago, and he treats them with great success. Liniments become a back number, and tincture of iodine is simply nowhere. "There is nothing like electricity and a first-class battery!" The next day brings in a patient with an irritable spine, an irritable and congested uterus, and enough symptoms to indicate a dozen drugs. Ah! if he could only treat her with electricity! Perhaps he can! He writes to a gynecologist, who knows how, and learns by return mail that he may apply a sedative, rapidly interrupted high-tension current from a long, fine wire coil, say 1500 yards of No. 36 wire, using for the purpose a modified Apostoli's bipolar vaginal electrode. Hastening to his beautiful new battery to carry out this simple recommendation, he searches in vain for the long, fine wire coil, and the only electrodes he can find in the box are two which are covered with sponge, but evidently not intended for vaginal use.

Can it be that something is lack-

ing in his new outfit? What is meant by a high-tension coil, and why doesn't his battery have one? He lets the matter rest for a time and resorts to the traditional tampon for his patient's relief. He has, however, ordered a small work on electro-therapeutics, and when his old case of chronic endometritis comes in to remind him of her age-long woes, he chuckles gleefully over the surprise in store for her when she finds herself speedily cured by electricity. Out comes the new book, which will tell just how to do it.

But what is all this he reads about chemical galvano-caustic polar action, 100 milliamperes, Apostoli's method, platinum electrode, intra-uterine application? The directions with his elegant solid oak battery say nothing about "Apostoli," and if there is any platinum on his handsome sponge electrodes it must be under the sponge; and, at any rate, the directions do not disclose how one could be gotten into the uterus. Long and carefully he ponders over his battery before commencing treatment, and though it is clear that the "primary current (mild) binding posts number one and two," must be correct for the galvano-caustic current, yet he is much puzzled about the milliamperes.

The directions say "the strength of the current is increased by drawing out the sliding cylinder," but fail to state how far out it must be drawn to equal 100 milliamperes. This is probably an insignificant oversight of the makers, and need not deter a practiced hand from beginning at once on the patient. Moreover, if one of the sponge electrodes won't go inside the uterus, why use it outside, of course. The electricity will go through all the same, and trifles like these must not prevent the patient from getting cured.

One month later—Case book record: "Electricity is remarkably efficient in lumbago. In a series of three cases treated by me the results were as follows: Cured, 100 per cent.; improved, 100 per cent.; unimproved, none. Fails in endometritis. In case faithfully treated bi-weekly for an entire month no

marked result was obtained, beyond the temporary relief of certain symptomatic conditions, not, perhaps, dependent upon the underlying diathesis. Too much should not be claimed for this empirical agent, as it evidently fails in a certain proportion of cases."

The first glamour of medical electricity was plainly wearing off. There could no longer be any doubt but that Erb, Duchenne & Co. were over-sanguine as to its value, and like many another new-born fad its proper level was to be settled by time. Being disposed to give it a fair trial, however, he would not yet discard it entirely.

Soon after this date he received in the mail a reprint of an elaborate article on "Metallic Electrolysis" by a well-known and successful authority. It was a revelation to him. A method giving such grand results was too important to neglect. He must certainly get out his battery again and take to using it more freely than he had of late. The battery accordingly was carefully dusted and its youth renewed with fresh bichromate of potassium solution, per formula in the "Directions." His enthusiasm was roused to 104 degrees Fahrenheit by a second perusal of the following statement: "This method involves the use of attackable electrodes—copper, zinc, silver, K. L., etc.—with mild currents and long sittings. Electrolytic cataphoresis has already been employed in a vast variety of conditions, and nothing in modern medicine equals it in possibilities. It offers our best method of combating diseased conditions of all mucous membranes—those of the eye, nose, throat, urethra, vagina and uterus—also hemorrhoids, keloid, conjunctivitis, trachoma, acute and chronic; hypertrophic and atrophic rhinitis, ozena, urethritis, endometritis, inflammations of the adnexa, etc. In uterine cases this method is easier, and better than Apostoli's, and the benefit lasts longer."

In his mind's eye our hero fairly raked his town with a fine comb for cases of the above lesions, and dreamed he cured them so fast that

he fancied himself able to order a new road cart with an automatic driving lamp for a Christmas present to his wife (intending, of course, to use it himself occasionally in his professional calls).

Electricity was surely a therapeutic magician, and why every doctor did not at once buy and use a first-class electrical battery, with cords, sponge handles and solid oak box, was difficult to see. "These recent aids to science went far to make a professional life worth living," and turned the drudgery of curing urethritis, ozena and "female weakness" into a pleasant and refreshing pastime. The battery must not be allowed to rust again, and filled with these diverting thoughts the worthy doctor proceeded to overhaul his outfit and make ready for diseases of the mucous membranes. This time he was determined not to be baffled by anything. If he could not perform cupric electrolysis with his sponge electrodes at the start, he would write to New York for further instructions and find out how to do it. Critical inspection of his apparatus and an hour of experimental work indicated that something was lacking to complete his outfit. The next mail carried an order to New York for one set copper-tip electrodes, eight sizes, price \$7.33, per catalogue. They came C. O. D., and were brightly polished, arranged in a row, screwed upon a plate, and seemed to mark a new era in the career of the solid oak battery. They must be tried at once. But how? What would they fit on to? Were all to be used at once or only a few at a time? At last a brilliant idea presented itself. He would unscrew the sponges from the wood handles and then screw on two of the copper tips.

He ought to have thought of this before. Eight tips (four pairs) indicated that they were to be used two at a time. To his great amazement, an attempt to carry out this idea disclosed the singular fact that the screw threads of the copper tips would not fit the wood handles.

S. H. MONELL,
44 West 46th st., New York.

Miscellany.

Probably the most extraordinary journal in the world is published weekly at Athens. It is written entirely in verse, even to the advertisements.

THE HARD TIMES.

The funny man of the Washington Star says that the times are so hard that his doctor told him that even his blood was impoverished.—Lancet-Clinic.

As a result of the examination of 4000 eyes, Dr. Miles, of Bridgeport, Conn., found that 65 per cent. required glasses. The women and girls far exceed the men and boys. The period during which the people have the most trouble with their eyes is between 20 and 30.—Food.

THE EFFECT OF GRAVITY ON THE CIRCULATION.

A paper read before the Royal Society on December 13, 1894, by Mr. Leonard Hill on the "Influence of the Force of Gravity on the Circulation" draws attention to a point of great interest. One of the conditions necessary for the maintenance of life is the supply of a due amount of blood to the brain, a condition depending on a proper relation between the tonus of its vessels and of those supplying every other part of the body. This relation must alter with every variation of position. Putting it roughly, there would not be enough blood for all the regions of the body at the same time if all the vessels were relaxed, and an even distribution to different organs is only maintained by an exact co-ordination between the contractile action of the muscular walls of the vessels and such pressure within them as is due to gravity. Mr. Hill pointed out that the important duty of compensating for the simple hydrostatic effects of gravity in changes of position must be ascribed to the splanchnic vasomotor mechanism, and that the effects of changing the position afforded a most delicate test of the

condition of this mechanism. He also showed that the compensation was far more complete in upright animals such as monkeys than in rabbits, cats, or dogs, and, therefore, was probably still more complete in man. These investigations are of all the more interest when read side by side with the clinical observations of Dr. Oliver, who has endeavored by a special instrument to measure the calibre of the arteries and to demonstrate their variations under different circumstances of position, showing that loss of this variability of calibre with changing posture is to be looked on as indicating a departure from health. Mr. Hill pointed out that the influence of gravity became of vital importance whenever the power of compensation was damaged by paralysis of the splanchnic vaso-constrictors, as by shock, by asphyxia, or by some poison such as chloroform, for, under such circumstances, in the feet-down position, the blood drained into the abdominal veins, the heart emptied, and the cerebral circulation ceased. On the other hand, although the feet-up position generally caused no ill consequences, it might happen if the heart was affected, as by chloroform, that it might be stopped altogether by the inrush of a large quantity of blood if pressure were applied to the abdomen too suddenly. Besides its action on the heart, chloroform rapidly paralyzed the compensatory vasomotor mechanism, whereas ether acted on it very slowly. One of the dangers of chloroform was then that by destroying this compensation for gravity the patient's circulation was left peculiarly under the influence of posture, and death might result from the abdomen being placed at a lower level than the heart. Mr. Hill also suggested that emotional syncope was not so much due to direct implication of the nervous mechanism of the heart as to paralysis of the splanchnic area, and a case was quoted where compression of the abdomen immediately removed the syncopal condition. The picture of the increasing vital co-ordination between the different portions of the circulatory apparatus to compen-

scale for the varying effects of posture is a very interesting one, and the suggestion that a suspension of this co-ordination may take place under certain circumstances, allowing the blood to drain by gravity into paralyzed areas, would explain what ordinary teaching does not make very clear—the striking contrast clinically observed between cardiac failure and what is so commonly spoken of as cardiac syncope.—*British Medical Journal*.

GRADATION OF MEDICAL FEES.

We read in the newspapers that the Russian Government has leveled up and down the medical fees chargeable by practitioners by means of a definite scale graduated according to the income of the patient. In this country, however convenient such a scale might be on many occasions, it would be quite impossible to impose a fixed level of remuneration in medicine or in any other calling. A physician's fee can only be defined by his skill, experience and popularity, and the only purpose which a scale can fulfil is to afford an indication as to the amount of fee which it might be reasonable to charge to patients of various paying capacities.—*Med. Press*.

THE RELATION BETWEEN RICKETS AND LARYNGEAL SPASM.

Out of 1600 rickety children observed by J. Comby in a Paris dispensary, only one-tenth had convulsions, whilst Henoch attributes two-thirds of the cases of glottic spasm to rickets. Although rickets is so common in Paris, glottic spasm is very rare, and the author believes there is a relation of cause and effect between rickets and laryngeal spasm. Still less is this so with dentition (even when delayed and perverted by rickets). Among 70,000 children seen during 11 years Comby never saw convulsions of purely dental origin, and never had occasion to lance the gums. Craniotabes, sometimes assumed as a cause of gastric spasm, if looked for is found with

“extraordinary frequency,” and in cases where there has never been any convulsion or glottic spasm. The bond that unites the two morbid states (rickets and convulsions), is dyspepsia (dilatation of the stomach, diarrhoea, constipation, etc.) with autointoxication, from which arise all these nervous disorders, and in great part even rickets itself.—*La Pédiatr.*, April 20, 1894.

DEATH OF DR. E. BRUNO ZINKE.

As we go to press word comes to us of the demise of Dr. E. B. Zinke. The doctor had spent the most of the past four and a half years in European hospitals, mainly in Paris, and returned to this city, which was his adopted home, last October, since which time he has been in delicate health. He was no doubt a victim of over-work in his studies while in Paris, which left him in condition to feebly resist an attack of la grippe, which was succeeded by other complications, notably of his spine, from which he succumbed. Dr. Zinke was for many years a well-known practitioner in Cincinnati.—*Lancet Clinic*.

SCHUYLKILL COUNTY (PA.) MEDICAL SOCIETY.

The Schuylkill County (Pa.) Medical Society held its annual meeting in Pottsville January 8. The following officers were elected: President, C. W. Bankes, Middleport; Vice President, A. P. Carr, St. Clair; Secretary and Treasurer, George Little, Tamaqua.

MANUFACTURE OF ANTI-TOXINE.

Consul General Mason has sent the State Department at Washington an exhaustive report describing the manufacture of antitoxine at Hoechst, near Frankfort-on-Main, which is the only establishment at which the new specific for diphtheria has yet been produced commercially and in quantities adequately to meet the rapidly increasing demand. This factory is now producing over 2000 doses per day. The report was intended for the use of Congress in case that body considered the subject.

The Times and Register.

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PHILADELPHIA, FEBRUARY 9, 1895.

WHOLE No. 857.

Original.

THYROIDECTOMY IN THE TREATMENT OF GOITRE.

BY JOHN B. ROBERTS, M. D.
PHILADELPHIA.

My object in bringing this topic before you is to call attention to the ease with which the enlarged thyroid gland can be enucleated and the mechanical symptoms caused by its pressure removed. After medicinal treatment has been employed sufficiently long to make it evident that no important change in size is to be expected, it seems to me that thyroidectomy need not be delayed.

Perhaps two months is as long as one need wait if during that time the approved remedies have been employed in full doses. It must be remembered that goitres not infrequently vary in bulk without relation to medicinal treatment; hence a diminution is not necessarily the result of the local or internal medication. If dyspnea, due to pressure on the trachea, is marked, or if hoarseness from compression of the current laryngeal nerves is present, one month's unsuccessful treatment by medicine would probably induce me to operate.

Parenchymatous injections of alcohol, tincture of iodine, or other irritants do not seem sufficiently successful or free from danger to be adopted as a routine, though cases may still come under my care in which I shall be willing to try them. Tapping or incision and packing of cystic goitre are available; but after the former the cyst is liable to refill, and the latter operation makes almost as much scar as, and is not much less serious than, thyroidectomy. Electrolysis does not seem to have given sufficiently certain re-

sults to make it attractive. Tracheotomy may be demanded when tracheal compression is marked, though in some cases subcutaneous or open division of the deep cervical fascia to allow the bronchocele to bulge forward will avert the threatened suffocation.

Division of the thyroid isthmus to lessen pressure, or ligation of the thyroid arteries to cause atrophy or prevent increased growth, are operations almost, if not quite, as serious as removal of a portion of the diseased gland.

I now speak only of thyroidectomy or removal of a portion of the thyroid glands; total extirpation is unwarranted, because the occurrence of myxedema as a result of the entire loss of the thyroid gland is pretty well established, experimentally and clinically. The most disfiguring and most compressing part of the goitre may be removed, and a portion of one lobe left to carry on the function of the gland. I would do this even if the part left was apparently not healthy to the naked eye. It seems pretty well established that a small portion of the gland, or a small accessory gland, if such be present, is sufficient to avert the occurrence of myxedema in patients subjected to removal of goitrous masses.

Thyroid feeding, the administration of thyroid extract, or the implantation of the thyroid gland of one of the lower animals, in the connective tissue or the peritoneal cavity of patients previously subjected to extirpation of the gland, may overcome the tendency to myxedema; but until this is really proved the surgeon should do only a thyroidectomy, and leave a portion of the gland in position.

I shall not go over the steps of the operation in detail, as they are sufficiently clear to any operator who is prepared to deal with sharp hemorrhage, and who is careful enough to avoid injuring the recurrent laryngeal nerves. A vertical incision is made in the median line of the neck or above the most prominent part of the tumor, and the necessary portion of the fibroid, cystic, or hypertrophic gland enucleated. Perfect asepsis or antisepsis is essential.

The enlarged thyroid in exophthalmic goitre has been subjected to operation, but the general character of this affection would deter me from operating upon the bronchocele, which is only one symptom of the disease; unless further statistics show its value in an unmistakable manner.

I add the reports of two cases to illustrate the subject. Neither goitre was of great size, but both were annoying to the patients. They were radically cured by operation. The enormous fibroid goitres seen especially in Europe would, of course, be more difficult to deal with, especially in regard to the control of bleeding.

THYROIDECTOMY FOR GOITRE OF EIGHT YEARS' DURATION; RECOVERY.

A single woman, aged 21 years, with a family history of phthisis, first noticed enlargement of the thyroid gland when she began to menstruate, at the age of 13. The enlargement rapidly increased for three years, when it began to press upon the trachea to such an extent that respiration was interfered with, and she was obliged to give up going to school because of the dyspnea that occurred while walking. After the lapse of a year the bronchocele began to diminish in size, but for the past three or four years had not changed much in bulk.

The patient had been under medical treatment for some time for the thyroid enlargement, without diminution in the growth; and I therefore determined in April, 1891, to excise

the most prominent portion of the gland. A four-inch incision was accordingly made in the median line of the neck over the most prominent portion of the enlargement. The middle lobe or isthmus of the gland was first enucleated, and I subsequently removed the entire right lobe. In the removal the sheath of the common carotid artery, with the descending branch of the ninth nerve upon it, was clearly exposed to view. A portion of the left lobe of the gland was then enucleated, making the size of the mass removed about that of a closed fist. The arteries requiring ligation were quite large and numerous. Sublimate gauze dressing was applied with considerable pressure in order to avoid oozing.

About half an hour after the operation the patient became so cyanotic from the pressure that the dressing, which had become saturated with blood, was removed. Her pulse became rapid and weak, but the removal of the dressing, the application of hot water, the administration of digitalis and other restoratives were followed by cessation of bleeding and quick reaction. A clean dressing was immediately applied. The next day the patient was in good condition with normal temperature. The wound healed promptly without suppuration or marked swelling. The patient was sent to the seashore about three weeks after operation with the wound healed, though her voice was quite husky. This was probably due to interference at the time of operation with the recurrent laryngeal nerve.

The woman has been seen repeatedly since operation, the last time being nearly three years from the date of the thyroidectomy. Her health has continued good; her voice has recovered its normal quality, and there is no evidence whatever of myxedema. It was because of the fear that myxedema might occur that I allowed a portion of the left lobe of the enlarged gland to remain. The goitre seemed to be of the ordinary hypertrophic variety, though no microscopic examination was made. The contour of the neck

is now almost perfect, except for the unimportant scar; and there has been no further growth in the portion of the gland allowed to remain.

THYROIDECTOMY FOR CYSTIC
GOITRE OF TWO YEAR'S DU-
RATION; RECOVERY.

A young man, aged 17, had noticed two years previously a small swelling in the front of his throat, about an inch and a half to the right and some distance below the Adam's apple. The tumor was not painful, but steadily increased in size until at the time he came under my observation there was some interference with respiration. He came to Philadelphia for the purpose of having the growth removed a year ago, but the surgeon who examined him advised against operative interference. When I first saw him, in November, 1892, the patient was the subject of a well-marked goitre. The girth of his neck over the most prominent part of the tumor was 15 3/4 inches. The enlargement involved both lobes of the thyroid gland, but the right was larger than the left. Stridulous respiration was marked, even when he was perfectly quiet and not taking any exercise. Breathing became easier as soon as the growth on the right side was pushed away from the trachea. This phenomenon I repeatedly tested, and it was very marked. Above the main mass on each side was a small nodule, somewhat separated from the rest of the tumor, but evidently being the upper portion of the lobe on the corresponding side. There was a well-marked groove between the two lobes, showing little involvement of the isthmus, and a furrow between the upper nodule and the main mass on each side. There was no exophthalmus, but there existed a doubtful systolic murmur. I treated the patient for some weeks with digitalis and quinine, with ointment of the red iodine of mercury and lanoline externally, and subsequently with fluid extract of ergot.

After a month's treatment I determined to remove the prominent

portion of the gland, which was making pressure upon the trachea. The patient took ether rather badly, as was to be expected from the interference with the respiration due to the growth. The right lobe of the tumor was exposed and was found to be cystic. The cyst was opened, and about an ounce and a half of dark-brown fluid was evacuated. The small nodule above and the right lobe containing the cyst were dissected from the underlying structures. The sheath of the carotid artery was exposed, and the lower portion of the mass extended close to the sheath of the subclavian artery.

Stridor was apparent after the operation; and some dyspnea remained, which was, however, relieved to a considerable extent by loosening the bandage. Four days later the dressing was removed. Union by first intention seemed to have taken place. A dressing of gauze and collodion was applied, and on the sixth day after operation the patient was allowed to get up. Four days later a slight hemorrhage occurred through the gauze and collodion dressing, as the result of a fit of coughing. Slight oozing took place for a couple of weeks through the opening made by the giving way of the union at this time. The blood-clot contained in the cavity left by the excision of the right lobe of the gland did not break down into pus, but gradually became organized. The patient's temperature was normal during nearly the whole of the convalescence, though at one time shortly after the operation it rose to 101 degrees. The patient was discharged about five weeks after the operation. His breathing had become normal, and the appearance of his neck was greatly improved, though there were still, of course, enlargements of the left lobe. There was no hoarseness remaining as the result of the operation, as in the former case.

A year later the patient wrote to me that he had had no trouble in breathing, that his voice was normal, and that there was no change in the appearance of his neck. The operation, therefore, was in every way satisfactory.

TUBERCULOSIS.

BY OSCAR S. PHELPS, M. D., OF
NEW YORK.

A former teacher, than whom there are few equals, if any superiors, Dr. A. B. Palmer, late professor of the Theory and Practice of Medicine in the University of Michigan, once said that the time would come when it would be a disgrace to have typhoid fever or a cold, both being filth diseases—the one from the decomposition of filth from without, and the other from the absorption of filth from within. The later discovery of the typhoid bacillus does not disprove his assertion, for the bacillus gets its virulent character from decomposing fecal matter just as the malarial germ gets its poisonous qualities from being first developed in the presence of decaying animal matter. So it is with tuberculosis. I am willing to go on record as prophesying that the time will come when it will be a disgrace to have consumption. That this position is not so extreme I hope to be able to point out later on. "The cloud no larger than a man's hand is already in the heavens." The late Dr. Hayes Agnew is reported to have said in his last address to a graduating class, that he believed within 50 years consumption would be as amenable to treatment as malaria is at the present time. The writer happened to know at that very time that Dr. Agnew was curing cases of phthisis by the application of the same principles which it is the object of this paper to set forth.

The history of tuberculosis is as old as the human race, and its destructive powers are illustrated by its percentage of the total mortality—14 per cent.—figures that are appalling. War and pestilence are but pigmy instruments in the hands of death!

To follow its etiology through the history of medicine would be to wade through a mass of literature so great and so contradictory that the student of medicine might well pause before such a task. The common, up-to-date view of the subject

is that the so-called Koch's bacillus is the cause of the malady, and that without its presence the disease cannot exist. So general and so classical has this theory become, that to deny it would be to bring down upon the devoted head of the objector the scorn and anathemas of almost the entire medical profession.

Last month it was our privilege to listen to three scholarly and able papers on tuberculosis, read before the Harlem Medical Association. The first one was by Dr. Bottome, and the writer said in substance that while the bacillus is the accepted and undoubted cause of tuberculosis, and is the true source of infection, it is equally true that all are not vulnerable to it—in fact, that the majority are not susceptible to the contagion. He further pointed out that the tubercular diathesis, hereditary or acquired, must exist before the bacillus can gain access to the victim, and set up the diseased action that constitutes tuberculosis. With all due respect to the writer and those who with him voice the above opinion, I would ask if that is not begging the question. Diathesis, forsooth! if there is one word more than another in our medical vocabulary that is misleading and meaningless, it is diathesis. I am constrained to exclaim, "How long, O Lord, how long!" shall this poor little word be made the scapegoat of our ignorance. I can but consider the up-to-date theory a tacit acknowledgment that we must first have a case of tuberculosis before we can have the bacillus, either in the blood or sputum. What place, then, would I give the bacillus? Practically the same relation to the tubercular patient as that of the larva *musca carnaria* to the carrion. In the one case you must have a dead animal; in the other, a dying one. I will concede with Gibbes and Shurly, that the ptomaines evolved by the decomposition of the excreta of the colonies of bacteria feeding upon the diseased tissues increases the activity of and modifies the disease simply by poisoning; and I believe that whatever effect the gold and manganese treatment proposed

by them, J. Blake White and others, it is due principally to its action in neutralizing these ptomaines. Consequently, I do not believe tuberculosis to be infectious or contagious. In this I am borne out by clinical observation and experience.

But you may well ask, if you thus dispose of the bacteriological theory, what have you to offer in its stead? I submit it is a very pertinent question. Before unfolding my position, however, I wish to offer some reasons for the position already taken. I have examined the blood of many individuals, and have found these persons to be in a tubercular state—I had almost said “diathesis”—from three to six months before there were any physical signs or bacilli. Then both of these were developed, and the cases that were not treated until this late stage, and then upon the old lines, finally succumbed to the inevitable, and went to swell the list of “died of consumption.” But what is still more specific, the bacilli of tuberculosis have been injected into the blood of a healthy individual without deleterious results. The writer, with others, examined the blood of the experimenter previous to the trial, and found it free from signs of tuberculosis. I refer to the well-known case of Dr. Robert L. Watkins. The bacilli were injected into his blood at the Loomis Laboratory more than a year ago, and up to date the doctor does not show the least sign of tuberculosis. In several of the daily papers the case of Dr. Byron has been published, in which the statement has been made that he became inoculated in the same laboratory with bacilli, accidentally, it is supposed—and that he is now suffering from tuberculosis. In reference to this statement, I have to say that it is highly improbable that he was so inoculated. But granting that he was, and also that he now has tuberculosis, I maintain that he was in a tubercular state long before the inoculation, and that the microscope would have shown, as it has in others, its existence several months before there were any bacilli to be found, or any physical signs that

could be recognized by the most careful examination.

At this point in the discussion you will have doubtless anticipated me in what I am about to say, viz. that tuberculosis is not infectious or contagious, and that the only good results that can come from the popular teachings on that point are increased efforts at cleanliness.

We are now led to offer for your consideration the true causes of the disease which forms the topic now before you. Some one has said of cancer, that it is a manifestation of tissue change under mob law, and it would seem to be not an inapt definition of tuberculosis. It is caused by a peculiar state of malnutrition, in which two important elements figure—starvation and poisoning—auto-infection, if you please. If a considerable portion of the food taken undergoes decomposition instead of assimilation, it follows, first, that the individual is deprived of sufficient nourishment, and, secondly, that he will be more or less poisoned by the products of that decomposition. This will occur slowly at first, but as the organs of elimination themselves come more and more under the influence of the poisonous gases, ptomaines and other products of decomposition, they, in a corresponding degree, fail to protect, and absorption begins. At this point the microscope reveals the first signals of warning in the blood. These are easily seen by the experienced eye, but are easily over-looked by the microscopist who is hunting for the bacilli of tuberculosis.

The advances may be rapid or slow, according to varying conditions which we will not stop to name. The exact initial lesion is believed to be a stasis at the point in the tissue, lung or other part, where a loaded white blood corpuscle cannot get through the capillary. The blood serum then exudes, carrying and depositing certain elements, prominent among which are the enlarged fibrin filaments, these impinging still further upon the adjacent capillaries and tissues, and we have the first condition of necrosis. It is impossible within the scope of this

paper to even hint at all the phenomena present in the formation of a tubercle, and reference will only be made to a few of the more salient.

As scavengers, the white blood corpuscles pick up the products of the decomposition that have been absorbed from the blood stream, and like the fox in the fable that stuck in the hole when he had filled his belly with fat chicken, they lodge in the capillaries, as described above. In the earlier stages only a few corpuscles are observed to be loaded, and only now and then one so much enlarged that it cannot pass the smallest capillaries. It would seem, then, that to cut off the supply of decomposing matter in the alimentary canal would at once to put a stop to the process of destruction by clearing the blood stream of the offending matter. While this is in a large measure true, there is one element that is no so easily disposed of. This has been called the third blood corpuscle, or tubercular granule, by Dr. Watkins. It is almost superfluous to point out that in the decomposition of animal and vegetable substances certain ferments come in as an important feature of the process, and that these have the power of indefinite reproduction under favorable circumstances. One of these is thought to have the power of reproduction in the blood, which may account for the difficulty of removing it. This complicates what would otherwise be a comparatively easy procedure, viz., to rid the blood of these products of decomposition as already suggested. If this property of the so-called third blood corpuscle, or tubercular granule were proven, how much it might aid us in the cure of our cases does not at present appear. It is certain that by cutting off the supply of decomposing matter in the alimentary canal we begin to restore nutrition all along the line. The eliminative organs begin to regain their normal status, and to again act as a barrier to the absorption of poisonous matter into the blood. It now remains only to see that we get vigorous tissue building

with the least expenditure of vital force, and we are in full command of the situation.

Before entering upon the details of this most important part of our discussion, allow me to say that there is no royal road to the cure of tuberculosis. The renowned Fothergil once while discussing the merits of expert physical examinations of the chest, and giving due credit to their value, projected this aphorism, "Look at your patient," and in that saying he, like many another, "built better than he knew." Look at your patient through the microscope, look at his blood, sputum, fecal matter and urine. In that way alone can you find out his exact condition, and the special work you have before you in his individual case. It is the key to the entire situation—diagnosis, present status and guide in your work of restoring his nutrition.

In the choice of proper food you cannot be guided by the patient's taste, or his feeling of well-being in the giving or withholding of food. If you adopt a certain course of diet, and wait to see if he does well or ill, you may not only lose valuable time, but do him an injury. As a matter of fact, he will die before you have discovered by such experimentation just what food to give him. The effect of your feeding must be watched daily with the microscope, and the evidence thus obtained must be your guide in giving or withholding, increasing or diminishing—in short, in making such changes as are needed to accomplish your purpose. From this point of view you will observe there can be no hard and fast rule for feeding. The one thing before us is a case of diseased nutrition which must be restored; and to succeed we must go about it in a scientific manner. To follow general rules is to utterly fail. In the beginning of the treatment of a given case successful feeding with its accompanying details of management are a matter of hair-splitting precision, for we have to "pull against a head wind and flood tide." In the choice of material, I may say that the ni-

trogenous foods are in a general way found to be best adapted to our purpose, first, because they contain in the highest degree the tissue-building elements most needed; secondly, because they are less prone to fermentation, and thirdly, because too small a proportion of available nitrogenous food is as a rule consumed by civilized man. A considerable list may be mentioned, with some reasons for a choice: beef, mutton, fowl, eggs, milk, fish, gluten of wheat, peas, etc. It is not enough that an article contains the requisite constituents to build up the diseased organism. There may be plenty of gold in the hard quartz rock, but unless we have the suitable appliances to extract it, it might as well be lead.

Let us briefly consider the physical status of that portion of the human family we have most to deal with, the average American—that high pressure specimen of the genus homo, whose highly developed nerve centres consume such an undue share of the vital forces that the vegetative organs have but little left them to perform their functions. It is plain that an individual thus handicapped cannot successfully rebuild his tissues from crude materials. Himself a product of evolution, and a long remove from his earlier progenitors, he should be given food that is equally high in the scale of evolution, a food which requires the least expenditure of vital force for the process of digestion. Such a choice of food should be made that will answer as well all the requirements of his body. With this principle in mind, we shall have little trouble in selecting the proper diet with which to begin the feeding of a tubercular patient. Then, with the aid of the microscope, as pointed out above, the work can be conducted along safe and successful lines.

The next step to be considered after feeding, and ranking next in importance, is cleanliness. This must be done thoroughly and systematically, and as water is the best solvent, it must be used freely. When

the reaction came from the practice, now long ago, of withholding cold water from the thirsty fever patient, a renowned teacher said to a medical class: "Use water; use it freely; use it internally, externally and eternally." Cleanse your tubercular patient; his skin, alimentary canal from mouth to anus; his liver and his kidneys. The skin should be cleansed with warm water and soap, or water made alkaline with ammonia, following this by gentle rubbing, and if he has night sweats, rub with alcohol 128, quinine, 2; acid. sulph., 1, and glycerine 16 parts. In washing the alimentary canal begin with the teeth; brush them with warm water and soap; rinse the mouth with warm water and sodae phos., a teaspoonful to a glass of water. The stomach may be washed by filling it with warm water by means of a funnel and tube, and then siphoning it out; but an easier and more practical way is to direct the patient to sip slowly a pint of hot water, so hot that he must of necessity sip it slowly, with a half-teaspoonful of bicarbonate of soda, or in some cases, two teaspoonfuls of sodae phos., one and a half hours before the meals. When taken very hot, downward peristalsis is produced, and the duodenum is cleansed as well, the gall bladder emptied, and the small intestine in a measure flushed. The stomach is thus cleansed of mucus and germs of fermentation, and is in a good condition to receive food. Next the colon should be flushed with warm water every day, or every other day, as seems best to the physician. To do this effectually, four quarts of water should be used, the patient lying on his back or side, or in some cases the knee-breast position is better. Some objection has been made to this procedure, the objectors claiming over-distension of the bowels, loss of tone, etc. The best answer to these objections is that in any case of constipation the colon is distended with fecal matter and gas, both of which are more stimulating than water, to say nothing of their poisonous qualities, which

are often absorbed. When there is a regular evacuation every day, only the lower four or six inches of the bowel are emptied, the remainder being more or less distended all the time. Is it not better, therefore, to wash it clean, thoroughly flushing the sewer of the body? This gives the muscular fibres an opportunity to rest and contract, the very conditions needed to favor a return to a normal state. The water distension is only for a few minutes, while the fecal distension is more or less continuous. I may add here that, in cases of extreme tendency to fermentation, various antiferments have been proposed, and used. Creosote, carbolic acid, phosphate of soda, etc., have all been recommended for this purpose. If used at all, they should be taken one and a half hours before a meal, otherwise they will interfere with digestion. Practically I prefer to meet the condition by changes in the diet, and have rarely failed to accomplish my purpose. In the manner of feeding a tubercular patient, I have refrained from going too much into details, for the reason that I wish to emphasize the principles upon which the condition of malnutrition must be met, rather than to offer a routine procedure, which would, as in many other notable cases, result in failure, and the value of a correct principle be lost through being condemned.

Let me remind you that any particular article of food, together with hot water, cannot, like the inferior maxilla of that long-eared quadruped of old, be seized, and sallied forth with to slay its thousands. The desire for such a weapon with which to combat tuberculosis is very strong, as was proven a few years ago when there was such a rush to Europe to obtain from first hands some of the then precious tuberculin which, with no other skill than that necessary to manipulate a hypodermic syringe, was to place this dread disease completely under our control. In mechanics there has been a great deal of wasted energy in trying to invent and perfect a complicated machine to per-

form some certain work, and at last some simple device has been hit upon that has solved the problem perfectly, and the only mystery has been why it had not been thought of before. So in this connection, may it not be pertinent to suggest that we turn our attention from the consideration of the infinitesimal, as pursued by the bacteriologist, to the more homely subject of the evolution and devolution of our bodies?

My position may be summarized as follows: Tuberculosis is not caused by the tubercle bacillus; it is neither infective nor contagious; it is not hereditary; its causes come from within the body, not from without; it is both a preventable and a curable disease.

143 West 131st st., New York.

Society Reports.

CINCINNATI OBSTETRICAL SOCIETY, OCTOBER 25, 1894.

CASE REPORT—DR. ZINKE.

Mr. President:—This specimen I removed last Thursday from a young unmarried woman, æt. 30, who presented the following history. She always enjoyed good health, and never had any menstrual difficulties. The evidences all pointed to her having led a virtuous life up to the present. Her family history is excellent; her father, mother and brothers are all living and well. This growth appeared a year ago, and seemed to follow an injury of the breast some three or four months previous to that. It remained stationary and did not give her any inconvenience until the last three months, when it assumed a very rapid growth, but still did not pain her in any way. Upon physical examination it was found to be freely movable and hard,

but not painful. It was so large that she had to pad the other side to make herself appear even. Because of the rapid growth I advised its removal. I have not yet satisfied myself of the nature of the growth. I believed it would be easy to get out, and I left considerable skin to bring the wound together. After removing it, there was a saucer-shaped cavity left, part of which was hard. I removed this, and it appears malignant. There has not been the least trouble with the wound, which is healing very nicely. Only for the infiltration surrounding it, I should consider the growth harmless in nature.

The next specimen was removed from a young woman, aet. 18, single, who had no special trouble during menstruation, or in the intermenstrual period, but always complained of a sense of heaviness in the region of the pelvis, and occasionally some sharp, lancinating pains, especially preceding menstruation. She was examined at Ironton, Ohio, by several physicians, who said she had a tumor. Having been examined before, I did not hesitate to make an examination myself, and I found the whole pelvic cavity filled out by a tumor, starting apparently from the right broad ligament; the uterus was pushed over to the left, and the tumor at the time resembled an edematous fibroid. Upon opening the abdominal cavity, the cyst sprang at once into view, and it had all the appearance of a parovarian cyst. I punctured it with the trocar and let out the fluid, which was absolutely transparent, and looked almost like filtered water. I removed the whole of the broad ligament, with the ovary attached to it. The ovary was very much enlarged, and had undergone cystic degeneration. After I had removed part of it through the abdominal incision, I found it was interligamentary, but had grown from the broad ligament so as to form a very nice pedicle. I present the specimen because it so beautifully illustrates the interligamentary cyst. If the ovary had been healthy, I would have been tempted to have simply shelled

the cyst out, which could have been very easily done.

The next specimen is a fibroid polypus, springing from the os internum, removed from a woman about 45 years of age, who had had menorrhagia for the last 12 years, and a metrorrhagia within the last two years. Occasionally this tumor, which was at that time somewhat smaller, would be completely extruded from the vulva, and she, thinking it was her womb, would push it back. She consulted several physicians, who advised its removal, but this she would not permit. When I was called to see her, she was almost moribund from loss of blood and from sepsis. I had her removed to the hospital, and the next day I removed the tumor. The hemorrhage was very profuse, but was controlled by applying hemostatic forceps, and removing them after 24 hours. Since removing the growth the symptoms of sepsis have subsided, and I think the patient will leave the hospital in a week or two. This woman, I have no doubt, had she refused an operation, would have succumbed. The anterior part of the tumor has a part, about the size of a dollar, which is sloughing because of gangrene, which is, however, probably not very deep. Other parts are also gangrenous.

Dr. R. B. Hall:—

Mr. President:—I would like to make a few remarks in reference to the second case reported. First, I want to congratulate the doctor upon the good prospects of recovery of the patients. One remark the doctor made, in reference to the enucleation of the broad ligament cyst, I think is likely to be misleading, although I will grant it applies to this case. The operator was fortunate enough to be able to ligate below the cyst and remove it as a whole, but he remarked how easily it could be peeled out, and again how easily the hemorrhage is controlled in these cases of interligamentary cyst. I will grant, in a case such as this, the hemorrhage probably would not be very troublesome, but I have had experience in enucleating some of these cysts, in which there was hemor-

rhage. For instance, take a tumor in which a large portion goes down into the broad ligament, and where, when you have enucleated clear down to the bottom of the pelvis, it separates the broad ligament close to the uterus; in these cases we do have hemorrhage, and hemorrhage that is not controlled by pressure. I have seen several cases in which a number of ligatures had to be applied. It is the kind of cases which, it has been said, makes men's hair grow white. Take tumors weighing ten to twenty pounds, which have separated the broad ligament, and you must peel out a portion of the tumor the size of an adult head; the patient loses large quantities of blood by the best method of operating possible—that is, enucleating to the crest of the ilium and then towards the uterus, the recognized and most skillful method—and before you can get the thick portion of the tumor away, so you can get at the bleeding points, the patient has lost a large quantity of blood. In other words, these are not easy cases, as intimated by the doctor, unless you have a small tumor like this. I remember reporting a case four or five years ago of an interligamentary cyst, not much larger than this, which could not be ligated below the cyst, and had to be enucleated, and that patient lost much blood during the operation. In these cases, notwithstanding you may put on catch-forceps and use every precaution, it is difficult to find the bleeding points. While an easy case is perfectly easy, the difficult cases, where a large tumor dissects down in the broad ligament, are anything but easy, and they must always be classed as bloody operations, in which the patient may die on the table from hemorrhage. Dr. Goodell has described these operations more graphically and truer to nature than any other writer with whom I am familiar. He says these are the cases in which there is great danger of death occurring on the table from hemorrhage, and my experience leads me to believe they are. I have had the misfortune to have seven or eight cases of large interligamentary

tumors, in which I had to dissect them out of the broad ligament, but have never had the misfortune to lose a patient on the table from any cause.

Dr. Palmer:—Mr. President:—A point occurs to my mind, in reference to the first case Dr. Zinke has reported. I have no doubt this was at first an innocent tumor of the breast, and possibly it is an innocent tumor still. I have no doubt it was until quite recently. The point in reference to those mammary amputations is this: Should we always take out every tumor we find in the mammary gland in women beyond 35, 40 or 45, or at or about the menopause, whether it is an innocent or malignant growth? Certainly cut it out if malignant, but should we exsect the breast every time we find a tumor in it? It seems to be the opinion of some that we should operate, whether the axillary glands are involved or not, because all innocent tumors here situated are likely to undergo malignant degeneration at any time. Personally, I have been disposed to wait and not take out everything, if the general health is good and the tumor has been present for some time. If it is malignant, take it out as soon as possible; but if it is innocent, wait at least some weeks or months. I am not disposed to remove every tumor at once, irrespective of kind or degree.

Dr. Johnstone:—Mr. President:—There have been so many points brought up, and I agree so fully with most of them, it is scarcely worth while to discuss it. In reference to these operations on the breast, I believe my experience leads me to be more radical than ever, but I do it in this way: I start my operations as exploratory incisions of the breast, and by so doing I have frequently saved a complete extirpation by removal of parts of the breast, when I found dilated milk ducts, etc., which were thoroughly cleared out, and I know women with part of the breast removed who are now enjoying perfect health. I make a short incision (an inch and a half is plenty long enough), when the growth has lasted

several weeks or months, so it will be part of an ellipse, and then am guided by what I find. I believe it is best to make an exploratory incision, so we can prolong it into an ellipse and make any operation we may desire. I believe this is best unless there is not the shadow of a doubt. But I believe the sooner a cancer is out the better are the chances of the patient. It begins as a local disease and becomes constitutional only by waiting, and with this kind of a dread over every lump that comes in the breast we should not too long delay exploring it. I believe these very dilated milk ducts are sometimes the starting point of cancer, just like, for instance, a simple lipoma may take on a carcinomatous degeneration. As for enucleation of tumors, Mr. President, I have had my share of experience. I have never lost a case, I am happy to say, although I have had to leave some very raw surfaces. In reference to the hemorrhage, we can now do a great deal we could not formerly. When you cannot get at the capillaries and stop the hemorrhage, and in this I think the Trendelenberg position would help considerably, we should find the vessel if we possibly can, but if we cannot, and the shock is increasing, and the hemorrhage is just from a general oozing, we should pack with gauze and remove it at the end of 48 hours, and I have not the slightest doubt in that way a good many cases Goodell referred to may be better treated. We can now do such operations with more certainty. Mr. President, I believe that is all, except to congratulate the doctor upon the happy result in the case of fibroid, because it is wonderful how stupid some people are, and how frequently we find just what was found in that case.

Dr. Zinke—Mr. President: Of course my remarks pertained only to the specimen presented. I appreciate very much the remarks made by Dr. Hall, in reference to the extensive hemorrhage we may have, where there is no pedicle and the tumor dips down deep in the pelvic cavity and the ligaments are stretched like

a tent over the tumor, as it were. In a good many of these cases it is best not to be so thorough in the removal of the tumor, but leave some of it behind, to be cast off afterwards, and stitch the sac to the abdominal wall. We can thus save more lives. There is no doubt, if we keep the pelvic cavity free from contamination, so no pus that may be formed afterwards can perforate the pelvic cavity, it is very rare any trouble will occur. I speak only of those cases in which you are bound to lose your patient if you continue, and there you give the patient a much better chance if you take your chances with granulations.

Dr. Johnstone—Mr. President: I would like to detail a case. A friend had had interligamentary cyst three years ago, and I tapped it, giving thorough drainage without trying to remove the growth. I replaced the tube once or twice, and the patient wore it eight or nine months, and is now as sound and well as can be. The sac was fully a third of an inch thick, and was stitched to the abdominal wall, and thorough drainage secured through the vagina.

Dr. Zinke—Mr. President: The point is: When shall we stop and pursue the other course? I believe in being thorough and getting rid of everything by all means if possible, but if it is evident that the hemorrhage is increasing and the patient becoming pallid and the cold perspiration appearing, we had better stop, pack with iodoform gauze, stitch it as well as we can and shut off the peritoneal cavity thoroughly. I pursued that plan in the case of extra-uterine pregnancy, where there was a circumscribed involvement of the peritoneal cavity. I opened the old incision and went down until we found the piece, which was not very large, but the cavity I created was very great, and the only thing for me to do was to fill up the space with iodoform gauze, irrespective of what might happen. I really expected the patient to die. It was a case of uterine foetation, where I had to operate on the spur of the moment in a tenement house, and I was surprised

that I did not get more sepsis than developed subsequently, although pus did develop and I had to open the whole thing a week afterward, and had to do it at night to save the patient. I believe we put in nearly a pound of gauze, which was not touched for twelve days, and when I did take it out the whole cavity filled up with urine, and the urine ran from the abdominal wound. I have no doubt the wall of the bladder had been disturbed during the operation, but the mucous membrane had been left intact, and when I removed the gauze I ruptured it.

For a moment a cold chill ran over me, but I said to myself, that bladder must be shut off, and I put in a catheter. It is now healed up entirely, and I believe I never had another so pleasing case as that one. In reference to the removal of small tumors, I believe if the breast is to be touched at all, the operation should be at once thorough and complete. I remember several cases, only one of which I will cite now, in which the surgeon was attempting to make a semicircular incision. He turned the tumor out perfectly, was aseptic in his work, and there was union by first intention. I had advised thorough removal, and the case slipped from my hands. I was present at the operation and congratulated the doctor on it, but I said, notwithstanding all that, I have some misgivings about it. A year later there was never a meaner breast than that one, and the operation to remove it was one of the most terrific ones. It was necessary to go clear down into the axilla. Whether the cure is permanent or not I do not know, but I think there is a renewal of the trouble. If the tumor seems to be a simple lipoma, and it is easily enucleated, perhaps we are warranted in giving that operation a trial, and watch the case afterward. But I do not care how easily the tumor is enucleated, if there is considerable hemorrhage before you get down to it, it is wise to remove the whole breast, for hemorrhage, no matter where, should cause you to suspect malignancy.

Dr. Johnstone: This is the kind of tumor, Mr. President, that we all know nothing but the knife will cure; it is a typical oedematous myomata. The specimen speaks for itself. You all know the old operation of total extirpation of the uterus. I have stated that fully 20 per cent. of these cases have diseased appendages, and there is no doubt but these are diseased. The only point, Mr. President, I could add to it is the method of finding the vagina and getting down to it. There have been many things devised, as staves put in, etc., but in this case the way I found it was, with my assistant's finger in the vagina, I cut in, split it open and cut it out. My idea in doing that was to leave a little of the uterine tissue in the circle, and I believe in that way you do not have so much hemorrhage. The anastomosis from the cervicle ring is not so great as if you cut into the vagina proper. You will have, I think, a better area for drainage, also, by leaving a little of the ring. This is the sixth hysterectomy I have done, and they have all gotten well. Baer cuts the cervix off square; all I meant was to cut into the conal of the cervix. I think the vagina is held open a little better by cutting at the expense of the uterus in peeling it out. But the whole secret of it is to get your drainage thorough and correct. I shut off the peritoneal cavity entirely and did not even use the drainage tube. The drainage occurred through the vagina.

(To be Continued.)

The Obstetrical Society, of Cincinnati, at its annual meeting, elected the following officers for the ensuing year: President, D. A. W. Johnstone; vice president, Dr. Sigmar Stark; secretary, Dr. E. S. McKee; corresponding secretary, Dr. W. D. Porter; treasurer, Dr. George E. Jones.

We are in receipt of a handsome calendar for 1895 from Frederick Stearns & Co.

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A Weekly Journal of Medicine and Surgery.

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PHILADELPHIA, FEBRUARY 9, 1895.

THE TUBERCULIN TEST IN CATTLE.

On several occasions we have called attention to the injustice of health boards in compelling herdsmen to submit their cattle to the tuberculin test for consumption. We have repeatedly stated that such a course would not fail to do harm, and it is with profound interest that we note a few recent reports in support of our views.

The danger of applying the tuberculin test to healthy animals lies in the fact that such agent conduces to the formation of lymphatic stasis, and thereby creates a condition favorable for the production of tuberculosis.

At a recent meeting of the dairy-men of Philadelphia and vicinity Dr. Samuel G. Dixon, of the Academy of Natural Sciences, said:

"I have no hesitation in stating that our people are unnecessarily alarmed regarding the danger of contracting tuberculosis from cows'

milk, which fact is to be regretted, as milk is one of our most valuable foodstuffs. It is a perfect food, made up of albumen, casein, fat, sugar, water and salts, formed in the laboratory of nature for the support of animal life. In fact, milk is a necessary article of food for the human family. In childhood and sickness milk is often the only food that can be taken to sustain life. Yet the present exaggerated scare regarding the danger of contracting tuberculosis through the use of milk is so general that physicians in Pennsylvania are experiencing much difficulty in persuading their patients to use cows' milk liberally without more or less nervous tension on the part of the sick, which fact is to be greatly deplored. Regarding the general compulsory use of tuberculin as a diagnostic agent for tuberculous cattle, I can answer most emphatically that I believe, in fact I know, it would be a grave mistake. While tuberculin is certainly useful for diagnostic purposes, it is at the same time a powerful poison that is surrounded by possible dangers. In my laboratory experiments I have produced immunity in the lower animals by the use of dead tubercle bacilli, plus the nidus or medium in which they were grown, which represents tuberculin, yet I produced, to say the least, a predisposition to the disease by the use of larger doses of the same material. Again, I have fully satisfied myself that a latent or a very slow chronic localized condition of consumption can be excited by the use of tuberculin into an active, acute tuberculosis, and occasionally without causing any rise of temperature at the time of test. By its general and indiscriminate use in cattle as a diagnostic agent, a comparatively harmless tuberculosis would often be fanned into a condition that would render innocuous milk poisonous to the consumer. It is, therefore, my opinion that it should, with our present knowledge of its power for good or bad, only be used to diagnose in cases where the doctor is suspicious, but yet in doubt of the presence of tuberculosis."

A letter from Ed. de Freuden-

reisch, of Berne, Minister of Agriculture of Switzerland, written to Dr. I. Cheston Morris, in answer to his inquiry concerning the use of tuberculin, is as follows:

"In answer to your letter of November 20, I can give you the following information: Till now neither the Federal nor the Cantonal Governments have edicted legal prescriptions as to the use of tuberculin to detect the presence of tuberculosis among cattle.

"As to the value of this agent (tuberculin) to detect tuberculosis, I asked the opinion of Professor Guillehean, Professor of the Veterinary School of Berne, where experiments have been made, as also in other parts of Switzerland, and I must say his opinion is not favorable at all to the use of this medicament. It permits, it is true, to detect latent tuberculosis, but it has the inconvenience of generalizing it rapidly in two or three weeks, in cases in which the tuberculosis would perhaps have remained latent for years. It causes, therefore, great loss in cattle and brings, too, danger to those who drink the milk when the latent tuberculosis becomes generalized. Therefore I don't think that the use of tuberculin will ever be rendered obligatory.

"As to the danger raised by tuberculous cattle to public health, M. Guillehean does not think it great, as the general custom it to have the meat well cooked and to drink the milk, at least in the towns, after it has been boiled.

"It is very difficult to say how many per cent. of the cattle are affected by tuberculosis. M. Guillehean thinks it is not frequent in the country. In every case he is of opinion, and I think he is right, that the cattle is always contaminated by the servants. It is now his habit, when making an inquiry in a stable, to look at first the attendants. When these are affected with tuberculosis the cattle are always tuberculous. When the attendants are healthy the cattle do not show any symptoms of tuberculosis. I think it would be for this reason quite useless to introduce the

use of tuberculin, even if the cattle with the symptoms of tuberculosis could be destroyed, as new transmissions of tuberculosis from the attendants to healthy cattle would continue to take place.

"As to the compensations afforded in cases where cattle are to be destroyed in case of infectious diseases, we are about to introduce the system of mutual insurance.

"To conclude, I may say, first, the use of tuberculin is nowhere prescribed legally; second, where it has been used it has caused great losses by generalizing the latent tuberculosis; third, the tuberculosis of cattle seems to proceed always from the human—that is, by transmission from attendants affected with tuberculosis."

Obituary.

A. L. LOOMIS, M. D., LL. D.

The death of Professor Loomis, announced in our issue of January 26, removed from the profession one of the brightest lights of modern times.

A singular fact is often observed in death among medical men, that the cause may be directly or indirectly attributed to diseases of which they have made a specialty. This was true in the case of Dr. Loomis. Pneumonia, from which he died, was a specialty in which he was considered a most efficient consultant.

The rise of Dr. Loomis to professional fame was not sudden. Whatever he attained was by hard work and perseverance. In this he was a worthy example to encourage the plodding practitioner. His opportunities were grasped in the routine order in which they came to him, and faithfulness was manifest in all the undertakings with which he was connected.

Dr. Loomis was born in Bennington, Vermont, on October 16, 1831. After having been graduated from Union College, in 1850, he came to New York and studied medicine with the late Dr. Willard Parker. In

1852 he received his medical degree from the College of Physicians and Surgeons. After serving the regular term of two years on the house staff of the Ward's Island and Blackwell's Island hospitals, he entered upon private practice in New York and devoted himself more particularly to the study of the physical diagnosis of diseases of the chest, a branch of medicine in which he soon won distinction and eventually unexcelled eminence.

He was subsequently appointed a physician to Bellevue Hospital, and held the appointment up to the time of his death. In 1862 he was appointed lecturer on physical diagnosis in the College of Physicians and Surgeons. In 1866 he was made adjunct professor of medicine in the Medical Department of the University of the City of New York, and subsequently he was appointed professor. He held the chair of medicine for the rest of his life, and it was in his didactic instruction in the college and his clinical teaching in the wards of Bellevue that he made himself felt in the profession. He was a member of many medical societies, and a consulting physician to various hospitals. He was president of the New York Academy of Medicine for two terms at a point in its history when much energy, intensity of purpose and sagacity were called for to guide it in safety through the perils of financial undertakings.

The writings of Dr. Loomis are widespread and well known for their practical application and exhibition of sound judgment. He was one of the few that made the subject of medicine an eminent success.

F. RIDGELEY GRAHAM, M. D.

Dr. F. R. Graham, of Chester, Pa., died at his home on Sunday, the 27th of January, from apoplexy. He was born in Chillicothe, Ohio, 69 years ago, and comes of good stock, being a descendant of the Ridgeleys and Greenburys, noted names in the Colonial history of Maryland. The Greenbury mansion at Annapolis was once occupied by F. Stanhope

Hill, the founder of the Chester Evening News.

Dr. Graham was the son of a Presbyterian clergyman, and is a self-made man. In his younger days diligent study and hard work gained an education and graduated from Amherst College, Massachusetts, taking his degree of medicine from the Jefferson Medical College, Philadelphia, where he was a fellow-student with Dr. William B. Ulrich, of this city, in 1850. For a time he lived with his uncle in Cincinnati, Ohio, but later went to Woodbury, New Jersey, and in 1859 he came to Chester, where he has since remained.

Correspondence.

Brooklyn, Feb. 1., 1895.

To the Editor of the Times and Register:

Sir:—I am desirous of adding to the clinical literature of morphinism in children. If any reader of your journal has noted a case and will furnish me details I'll appreciate the favor, and give full credit.

J. B. Mattison.

The following letter has been received, which speaks for itself:

Davenport, Iowa, Jan. 31, 1895.

As a long-time reader of the Times and Register I cannot forego the pleasure of returning my thanks for the admirable paper on consumption that Dr. Parsons has offered its readers, and of saying that I have not read anything so thoroughly valuable in a long time. If the journal contains nothing worth reading for the balance of the year, a supposition most preposterous to those who know the Times and Register, the patrons would have received many times the worth of their money in the excellent paper alluded to. There is no subject about which there clings the mist of uncertainty that has accumu-

lated over the subject of consumption. Dr. Parsons' article must be a revelation to those who have accepted the theories of the books. Such articles as his are what readers of journals yearn for, but seldom get.

Fraternally,
J. A. DeArmand.

Surgery.

DR. T. H. MANLEY, New York.
COLLABORATOR.

INTERESTING STATISTICS IN REGARD TO THE TREAT- MENT OF CANCER.

BY E. H. JONES, M. D.,
PATERSON, N. J.

I notice in the New York Medical Record of August 25, 1894, an article giving some statistics in regard to the treatment of cancer by Dr. W. T. Bull, of New York City. These statistics apply only to cancer of the breast, and the treatment is the ordinary surgical treatment of cancer. This is a record of 75 cases treated previous to 1891. Dr. Bull has taken the usual three years' limit—that is, he is satisfied if the patient has no recurrence of the disease within three years from the date of operation.

The figures as given by him are as follows:

Total number of cases treated prior to 1891	75
Died from the operation	3
Died from recurrence or metastasis	50
Still living after recurrence	2
Died of other diseases after having passed the three years' limit without further manifestation of the cancer	4
Died of other disease during three years following operation	0
Still living without recurrence of the cancer January 1, 1894...	16

According to the above statistics two-thirds of the patients that he treated died from recurrence or metastasis of the disease, and only a little over one-fourth may be considered permanently cured.

These statistics will be about the average of the ordinary surgical treatment of cancer.

In comparison with the above statistics allow me to call your attention to some statistics, giving the results of my treatment of cancer. I have selected 100 cases good and bad, external and internal, that were treated consecutively previous to January 1, 1891.

Total number of cases	100
Died under treatment	1
Died from recurrence of cancer ..	2
Still living, with recurrence	2
Died of other diseases after having passed the three years' limit without further manifestation of the cancer ...	15
Died of other diseases during three years following treatment	14
Still living without any recurrence of cancer, January 1, 1895	66

You will notice from the statistics I have given above that Dr. Bull's cases as reported only refer to cancer of the breast, while the cases as reported by me include all forms of cancer, both external and internal. Dr. Bull reports in his statistics 16 out of 75 permanently cured. In my report you have 66 out of 100 permanently cured. From my own experience in the treatment of cancer, which has covered a period of twenty-five years, if there is a recurrence of the cancer after treatment, it is generally within a year after the treatment of the cancer.

You will notice in my report that two cases out of the 100 died from a recurrence of the cancer, and two are still living with a recurrence of the cancer.

In Dr. Bull's statistics 50 out of the 75 cases he reported died from recurrence or metastasis of the cancer.

I believe that the above statistics will prove interesting reading for intelligent physicians throughout the country, and I am willing to leave it to the average practitioner to decide which plan of treatment they would prefer to use in the treatment of cancer.

DISCUSSION ON APPENDICITIS.

M. Le Gendre opened the discussion by stating that it was a great error to suppose that all intraperitoneal inflammations in the right iliac fossa were of appendicular origin; therefore, the necessity of precision in diagnosis.

He deprecated purgatives in the incipient stages of acute inflammation in the cecal region.

Treatment should consist of absolute repose, with moderate use of opium. He preferred frigorifics to revulsives. Diet should be severely restricted, and if there be much thirst, small pieces of ice may be given. He believes in the free use of large injections of water per rectum.

The patient should be seen two or three times a day. He believed it dangerous to explore under chloroform as recommended by Milliard.

If after 48 hours' active but cautiously directed treatment there is no amelioration, then, an incision should be made into the seat of disease.

Sevestre, who followed, gave a resume of his views on the question of appendicitis. Under the name of perityphilitis, he said, there were conditions widely diverse.

The first and most common, he believed, was purely cecal, relatively benign and curable by medication alone.

The second were of appendicular origin, and of those, too, the majority would do well with constitutional measures alone; but they require a vigorous surveillance, for if serious symptoms suddenly develop we must be ready to operate.

Mathieu stated, that he had carefully examined this question of treatment from various sources, with the result that he was positive that medical treatment would cure the large majority. It was by no means settled whether it was best to interfere rather too much, than too little.

Sonnenburg had operated 77 times with 12 deaths, and was satisfied that the effects on the patient after recovery were not the best.

Richardson in 168 had 42 deaths.

In two he was on the point of operating when consent was refused, and both recovered. But he was not absolutely opposed to operations, and would recommend them in certain desperate cases.

M. du Cagal, of Val-de-Grace, had seen and treated a considerable number of these cases of appendicitis by systemic remedies alone, all recovering. He had found the free use of leeches on the iliac-fossa of great value; besides, the ointments of belladonna or mercury.—Societe des Hospitaux, 3d Nov., '94; *Le Merced-Med.*, 5th Dec., '94.

OCCLUSION OF THE INTESTINE BY THE GRAVID UTERUS.

M. Lotheisen presented at his operative clinic a patient with the phenomena of occlusion of the intestine, by a tumor posterior to the rectum. As a colotomy which had been performed had given little amelioration, he practiced a laparotomy, which exposed the gravid uterus with a pedunculated tumor, which had an opening from the left ovary. The tumor with the ovary was removed and the uterus replaced. Her pregnancy was not interrupted, and she was delivered safely at term.—*Gazette Heb.*, Dec. 17, '94.

Philosophy.

DR. HENRY BURCHARD, Philadelphia.
COLLABORATOR.

Much warfare is waged about the precise definition of the word temptation, many contending, and this justly, that its significance is governed by the individual, and in no two is it alike. After reading much of the testimony the following is offered as a definition:

Temptation is the extent to which the psychical effects of one set of conditions overcome those of another represented by the combined feeling of fear and conscience.

H. B.

Probably no rational individual would oppose the practice of vivisection, were this practice always prompted by an unselfish desire to benefit mankind. Analyzing many of the reports of investigations into this field, one is driven to the deduction that a desire for personal glory is not infrequently the animating force. In many instances the motive impelling the inquirer being, is it possible to have my name identified with a discovery and not, will these investigations be of service in medical art?

A prominent example of this desire is found in the well-known story of Parrhasios. This episode has formed the basis of a dramatization, in which the actor Mantell represents with all its repulsiveness the spectacle of the total subjection of the altruistic to the egoistic; perhaps intentionally this is so clearly presented that any one possessing even a spark of humanitarian spirit is filled with loathing for such motives.

H. B.

Compared with the total number of volumes extant, medical men appeared to have played but small part in general literature; but, as worth, beauty, depth, utility, are not matters of quantity, but of quality, the contributions, few though they may be in point of numbers, are far from insignificant, viewed as to their material and excellence.

Three Philadelphians of the day are prominent in the list: Drs. Garretson, Mitchell and Gould. The readers of this journal are familiar with many of the philosophical writings and teachings of Professor Garretson. Dr. S. Weir Mitchell's reputation as a great physician is permitted to somewhat obscure his position as a poet and novelist; and yet no writer of his time has a keener insight as to affairs, character, and the cause and being of human action than has he.

The observations, which can alone be made by the cultured physician, are turned to the purposes of character exposition, and these characters,

while losing neither beauty nor distinctiveness, are true generalizations of types of the genus homo. Dr. Mitchell applies, and most skillfully, psychology to the novel, and through it adds rather than detracts from romance and poetry. Apropos of this, his novel, "Characteristics," forms in part a fascinating contribution to the study of medical psychology, and without the features of a "medicated" novel. Weighed impartially, his novels will be found among the best, if not the best, for character analysis, philosophy, aesthetics, and high in the list of pure romances.

The various reviews have given extended and favorable notices of Dr. George M. Gould's book, "The Meaning and Method of Life." No doubt everyone has sought to give expression to the feeling of nothingness which pervades every man who star-gazes; the feeling of the comparatively infinitesimal, when viewing and mentally measuring sizes and distances of and between stars and nebulae; the helplessness and hopelessness possessing one when he weighs himself as a cosmic particle; Dr. Gould sums up these tangled emotions in the phrase, "Cosmic horror," and who among thinkers does not owe him a debt for the words? Taken as a whole, his work is one of the few thoroughly original contributions to philosophy. The finding and placing of an incarnate, yet intangible God, the naming of it or Him, Biologos, and there may be made upon this as sound a theological system as is possible.

The field of every science has been scoured to provide material for argument in the work; so that beside what is usually made speculative thought is placed demonstration, founded upon researches in molecular physics, the chemistry of the carbon, compounds and cell biology, and so on. Dr. Gould's skill in the selection of words, phrases and arguments is well known and applied to the thought vivifying this book, there results a volume of such excellence that no investigator can afford to leave it unread.

H. B.

Wayside Notes.

A brilliant homeopathic physician furnishes a paper in which he maintains that all the cases of cancer he had observed in thirty years' practice were produced by anxiety. As we all have had a little of that up to the present time, it is proper to ask why we too have not succumbed. According to the learned doctor this fact affords an additional proof of his contention. It shows a general immunity from cancer similar to that which protects the majority of persons from other diseases. See? I am sure I don't.

Is there aught in dreams? A patient of mine, who could fill a book full of strange visions and dreams, had one the other night that proved at least a valuable coincidence. Her husband holds an important position as a skilled workman in laying electric cables. For some time he has had an enemy in the shape of a fellow-workman, who is envious of his position, and would stoop to any action in order to dispossess the other man.

On the night in question my patient dreamed that she saw the envious workman with his helper go to the manhole in the absence of her husband, and do something, she could not see exactly what, with the open tube on which her husband had previously been working. The next morning she warned her husband to be on the watch against this man. That same day after the dinner hour, her husband, before proceeding to work, examined the tube carefully and found that a lot of water had been poured in it during his absence. Inquiry brought out the fact that the other workman with his helper had been seen coming out of this hole—a place where they had no business to be. But for his wife's warning dream, he would not have thought of examining the tube; the water left in there would have done anywhere from one to five hundred dollars' worth of damage; besides the job would have been condemned at the

final test, and the husband of my patient, who was responsible, would probably have lost his position on the charge of carelessness.

An acquaintance of mine heard some time ago in an English church an announcement given out in a manner so ambiguous as to cause a slight smile to wander over the congregation. Said the parson: "There will be a baptism of adults at the northeast corner, a baptism of children at the southwest corner, and a baptism of infants at both ends."

A colored dispensary patient was recently asked whether he ever went on sprees, and to this question he promptly replied: "No, sah; I never drinks to success."

The other day a friend of mine received the following interesting specimen of that vernacular in which the Queen is supposed to delight: "Doctor, my wife complains of Soringness a Round her Stomach and i would lack For you to come down and Sea hear if you can to-day."

Miscellany.

THE NATURE OF IMMUNITY.

In a lecture delivered before the International Congress of Hygiene, Professor Buchner, of Munich, summarized his conclusions in regard to immunity and immunization. Natural and acquired immunity he considered differed in principle. The natural power of resistance is due to the bactericidal influence of the alexines, certain dissolved constituents of the organism and to a congenital power of resistance in the tissues and cells of the body. The leucocytes play an important part in this natural protection, not through phagocytosis, but by means of dissolved substances they secrete. The immunity artificially acquired or the immunity acquired in later life is due to the presence of modified bacterial products—the antitoxines. The action of the antitoxines is not directly upon bacterial products, but

by modifying the organism these enable it to resist specific poisons. This is essentially the doctrine most prevalent.—Physician and Surgeon.

VALUE OF HUMAN LIFE.

It may be interesting to know what a human life is worth. This has been a mooted question, but appears to have been decided in New York State, where \$5000 is the extreme amount that can be collected as damages in case an individual is killed through the neglect or carelessness of another person or of a corporation (Ex.).

The law was passed through the powerful influence of the railroad companies centering in New York, and all efforts to have it repealed have thus far proved unavailing. Possibly \$5000 is all a New Yorker's life is worth, but other States set a higher value on their citizens. Further, several of the State constitutions distinctly declare that no law shall be enacted establishing the amount of damages that may be collected for causing death or injury to a person.—St. Louis Medical-Journal.

CAUTERIZING OVARIES INSTEAD OF REMOVAL OF THEM.

Dr. Pozzi, at Hopital Broca, has now practiced cauterization of painful ovaries for over two years, and considers the plan very successful. In one case in which he operated upon both ovaries the woman has since given birth to a child. He performs his laparotomies in the ordinary recumbent position; draws the ovaries out of the abdominal opening. If the ovary is totally diseased he removes it; but if a part is found to be healthy he amputates the affected portion, cauterizes the stump, and sews the end with silk. If there are some small cysts he opens them by touching them with the Poquelin point. The ovary being returned to the abdomen he examines and treats the other in a similar manner. Often as many as six small cysts are opened in this way in each ovary.—Therapeutic Gazette.

SULPHO-CARBOLATE OF SODIUM IN PURPURA HEMORRHAGICA.

Dr. Sansom reports a case occurring in a girl, aged 12, where the extravasations occurred not only over the skin surface, but also upon the nasal, gastric, intestinal, vesical and bronchial mucous membranes. He believes it to be due to influenza, and good results were obtained from the administration of sodium sulpho-carbolate in half-drachm doses every four hours.—Lancet, June 2, 1894.

THE COMPENSATORY ACTION OF THE CEREBRAL HEMISPHERES.

Marie de Manacein (Neurol. Centralbl., November 15, 1894) has tested this capacity by various methods. Assuming that sleep is most profound during the first two or three hours, and that the left cerebral hemisphere normally being the seat of the speech and the right hand centres is more active in working state, and therefore more exhausted and less accessible to stimuli than the right during sleep, it was found that on lightly tickling either side of the face of ordinary persons in this stage of somnolence the sleeper made repellant movements invariably with the left hand, even when from lying on the left side it was necessary for the sleeper to withdraw the limb from beneath the body. In eight left-handed persons the right limb alone was moved. These experiments, the author maintains, are demonstrative of the compensatory or vicarious action of the one cerebral hemisphere during deep sleep. As further illustrations of the point, it is mentioned that in dogs exhausted by complete deprivation of sleep reflex movements only occurred on one or other side, alternating periodically as if one half of the brain were temporarily asleep. In cases of left hemiplegia, with disturbances of speech and writing, the latter act could be accomplished with the left hand better during the attack than at other times.

The Times and Register.

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PHILADELPHIA, FEBRUARY 16, 1895.

WHOLE No. 858.

Original.

RETIRING PRESIDENT'S ADDRESS*.

READING, PA.

BY A. B. DUNDOR, M. D.

Another year of the life of our society is ended. The wheel of time has moved one notch further on its endless course. Our good deeds, as well as our misdeeds, are matters of record, from whence there is no appeal. Let us hope that the former overbalance the latter, and that the world is somewhat the better by our having been in it.

I cannot say that the society during the last year prospered any better than under the administration of my predecessors; I will not admit that it did any worse.

Some meetings were fairly well attended, interesting papers were read and discussed, some new members were added to our number, and, at last, but not least, every member is now in possession of a nicely-printed copy of our constitution and by-laws—a long-felt want realized.

With these few introductory remarks I will now endeavor to elicit your interest to what I deem as possibly the most important and the most far-reaching subject in sanitary science, namely,

SCHOOL HYGIENE.

Inasmuch as we claim to be physicians and surgeons, which implies that we are educated and equipped with the necessary means at command to cure diseases and heal the wounded, let us not forget that we are, and if not, should also be, sanitarians and know how to prevent diseases, as well as curing the same.

Hygiene and sanitation has become a science, and rapid progress is

being made in a knowledge of them, and in putting them to practical use and application, still there is a wide field here remaining open for further study and investigation.

Whilst at the present time your minds may be occupied with the great advancement that our city is engaged in, by constructing a system of both storm and house sewers, and thereby opening its gates wide for a great flood of sanitary light to pour into among our large population; and, whilst occasionally you may be turning up your noses in the presence of a foul water-closet, or at the sight of a heap of rubbish with decomposing garbage, or a filthy and stagnant pool of water, please do not forget our thousands of innocent school children whose life, health, and the normal or abnormal development of their bodies are at stake in proportion according to their sanitary or insanitary surroundings.

We must remember that we are responsible for the well-being of our children, and any neglected effort on our part to contribute to and promote a healthy growth and development of their physical organizations and bodily vigor, constitutes a most sacred duty unperformed.

The greater the number of individuals massed together, the greater is the danger of being affected injuriously by unsanitary surroundings. It has been well determined by some of our best scientists, both in this country and in Europe, that in order to maintain a proper standard of health amongst the pupils of our public schools a certain amount of pure air must be constantly supplied whilst a corresponding amount of impure air must be got rid of in the school room; that the temperature in the room dare be neither too high

*Read before the Berks County Medical Society, Jan. 8, 1895.

nor too low; that a certain amount of pure light must be introduced; that the seats and desks must be of a proper construction in their relation to each other and to the pupils; that the rooms must not be subjected to the penetration of obnoxious gases, odors or noises; that the children's clothing must be cared for in suitable closets outside of the school room; that strict cleanliness of the rooms, as well as of the pupils' persons, must be observed; that plenty of bodily exercise must be enforced, and that overtraining of the mental faculties by too heavy tasks must be avoided.

Having a few years ago devoted about one-half of my time for a period of two years to the study and a thorough sanitary investigation of the public schools of our city, let me draw a comparison of their actual existing condition with well-tested and generally accepted rules pertaining to school hygiene, and point out many defects, some of which could easily be remedied, or at least be improved.

The whole subject may be divided as follows, viz.: First, heat and ventilation; second, light and shading; third, furniture; fourth, clothing; fifth, overcrowding; sixth, plumbing and water-closets; seventh, mental pressure; eighth, free text books and the common drinking cup; ninth, general condition and surroundings of the school buildings; tenth, janitors. Then I will add the duties of the school controllers and the general practitioners of medicine.

I will state here that in a paper like this it will be impossible to go into any extensive details upon all the subjects just mentioned. I will endeavor to give a little more than simply an outline in order that I may be properly understood.

In the consideration of heating and ventilation, let it be understood that from 1400 to 3500 cubic feet of air should be furnished to each scholar hourly, and that the air contents of the room are required to be evacuated from five to twelve times during an hour, which requires a change of the entire contents once in every 8 1-2 minutes. It is, therefore, very

apparent that quite extensive means must be provided to draw into or force in the air from the outside as well as similar means to drive it or suck it out of the rooms again. Then, that this large and ever-changing volume of air remain at a regular and proper temperature during cold weather indicates the vast responsibility and resources that must necessarily be brought into requisition to meet the requirements of proper heating and ventilation. When you have a school room of about 20 by 30 feet, with from 40 to 50 pupils, it requires an aperture of about 10 feet square, say, about five registers with gratings, each one foot wide and two feet long, to admit a sufficient quantity of fresh air, the air to have a velocity of 3.3 feet per second.

Now, you must have a similar provision to get rid of the air again as it becomes foul and unfit for breathing. This air in the room must also be kept warm, at about a temperature of from 65 degrees to 70 degrees which, by virtue of this continuous interchange of air, requires a furnace or other heating apparatus of very large capacity; bearing in mind that the air dare not be overheated or burnt, and that air killed in this manner becomes just as intolerable and objectionable as foul air. Again, all this air must be introduced, heated and got rid of again without subjecting the occupants of the room to dangerous draughts.

All air introduced into the school room, either direct or through the heating furnace, should be drawn from the outside of the building about ten or twelve feet above the surface of the ground, in order to avoid the lower stratas of air, which are always damp and the more heavily charged and miasmatic influences and other deleterious substance, resulting from surface decomposition.

The best system to meet these indications that I have met with is the Smead system of heating and ventilating, which is now employed in the Laurel street school and a few of the lately-erected buildings. This system has a very extensive provision to feed its furnaces with fresh air

from the outside of the building (though, unfortunately, from the ground level), which, being warmed, is conducted through a large register into the school on a level above the heads of the pupils, the foul air being at the same time sucked out through a large number of small exits along the level of the floor, which lead to a main shaft, that is constantly heated, and thus a continuous and healthy circulation of air is maintained without incurring any cold draughts over the heads of the children.

The next in efficiency are those arrangements employed in the Twelfth and Windsor, Tenth and Union, and the Boys' High School. I could not get the name of the system. But a large amount of fresh air is drawn from the outside, and the foul air flues run down into the cellar, into the heating furnace, which promotes a strong suction and a good foul-air ventilation.

In a few other buildings are found in each room a foul air register directly into the chimney, which is not a bad idea for the abduction of foul air.

Now, in a majority of the buildings we meet the following conditions, viz.: They are heated either by steam, or hot-air furnaces in the cellar. If by steam, no provision is made to introduce fresh air from the outside, excepting one building, that at Seventeenth and Cotton streets; if by hot air, a portion or a whole of a cellar window, which generally is very small, is the full extent of all the fresh air admitted, and supplied to one-half or the whole of the building.

In some buildings there is no inlet whatever from the outside, being heated either by stoves or furnaces in the cellar, which have their air-feeding inlets direct from the cellar floor; a number of these, if not all, have been changed since I visited them, by running a box flue from the furnace to a cellar window, and thus feed from the outside instead of direct from the cellar. No more villainous stuff could be sent into the school room than the damp, dusty and mouldy air from the cel-

lar; all cellars generally are poorly lighted and ventilated. In stove heating of a school room there is a chance for some to roast, some to freeze, and if any escape either, they may smother with foul air; yet, we find three and a half buildings altogether so heated.

Now, what provision do we find to extract the foul air? With the few exceptions first mentioned, there is absolutely nothing outside of open doors or windows. You will find almost in every room from two to four small flues in the wall, with a small register, say about 8 by 12 inches, located either near the floor or near the ceiling. These flues commence either in the cellar or on the first floor, and end in the loft, without penetrating the roof, are not heated, and in many instances have their registers closed or obstructed with cobwebs, dust, loose plastering, etc., and at best will only convey the dust and damp air of the cellar into the rooms on the first floor, or the foul air from the rooms on the first to those of the second floor. If these flues were connected, and then continued through and above the roof of the building, closed to the cellar, and have heat introduced into them to drive the column of cold air they contain out at the top, and thus create a suction, they could be made to subserve a valuable purpose.

As they are, they are only calculated to deceive, and are practically of no account whatever. All the fresh air that reaches the rooms from these heating furnaces is conducted into them through one or two registers of about one to two feet in diameter. This is very far from ten feet square, as we stated in the beginning, the necessary requirements called for. This necessitates altogether a window ventilation, which furnishes now the only avenue by which fresh air is introduced or foul air extracted, and at best is far from sufficient, besides subjecting the pupils to highly prejudicial draughts of cold air, by which many contract more or less serious colds, if not some inflammatory fever, such as pneumonia, pleurisy, acute bronchitis, etc., providing that this ventilation is done the us-

ual way, by raising the lower sash or lowering the upper one.

Window ventilation we must have in these buildings, and it can be very readily done without any danger of injurious draught by simply putting under the lower sash a narrow strip of wood, so as to raise it sufficiently to break the connection between the upper and lower sash, which will give a space of about a 1-2 or 3-4-inch sheet of fresh air to pour into the room with an upward direction, and thus striking the ceiling, it will be warmed and of an even temperature when it reaches the heads of the scholars.

The School Board, by resolution, has given the Reading Steam Heating Company the contract of heating the new Girls' High School Building, which, in my opinion, is a most egregious blunder.

That company can no more heat that building and at the same time afford efficient ventilation, than that I can fly to the moon. It is simply another result of jealous and revengeful factional quarreling, and the public, of course, is supposed to pay the piper.

Just take the City Hall for an example. The company can never heat it satisfactorily. Whilst in very cold weather the rooms on the south side may be warm enough, those on the north side are too uncomfortably cold to stay in them; in fact, the radiators are hardly warm; and mind you here, all the windows and doors are closed and no cold air from the outside is admitted. The metre in the basement generally registers a pressure of half a pound. Now, draw from 1400 to 3500 cubic feet of cold air for each pupil every hour in the Girls' High School building, and keep that warm, and you will have quite a different task before you. It would have to be done by indirect radiation, which would require radiators of immense capacities, which could not be kept at the required heat in a steady and continuous way the whole day through, from a plant that runs its steam over a large territory of our city.

Why not abide by the original con-

tract, which includes the Smead System, which system is acknowledged by all disinterested people to be the best in use up to this time?

This system has proved itself capable of doing the work to the fullest satisfaction.

LIGHT.

Lighting a school room properly requires a glass capacity that is equal to 1-6th to 1-4th of the floor surface, and furnish 2 1-2 square feet of glass to each pupil. There should be a sufficient number of large windows, commencing about four feet from the floor, and extending to as near to the ceiling as possible, since it is the upper section of the windows that furnishes the best quality of light. In comparing the lighting of our school houses I cannot go into details as to every building; sufficient to say that we find it to compare with the floor capacity in proportion all the way from 1-4 down to 1-17, and averaging to each pupil from 3 down to .62 of square feet. The majority average from 1 to 2 square feet to the pupil, thus making it quite apparent that, all taken together, the existing light capacity is decidedly very deficient. I notice in the latest buildings that the School Board have erected this deficiency is overcome by the proper method of construction, in having a large hall running through the centre and leaving the whole outside wall surfaced for the introduction of plenty of large windows.

If you wish to see a genuine piece of nonsense in this direction, examine the Laurel street building, otherwise such a fine and model building. You will find there in the south rooms eight windows, and an abundance of light supply; but in the north rooms you will find only four windows, and one of them directly under a roof over the steps, thus giving them a very small amount of light; and all this for the sake of ornamentation, to give the building a nice appearance on Laurel street.

It is this insufficiency and badly-managed lighting of the school rooms

that constitutes one of the main factors in furnishing numerous victims for our specialists on diseases of the eye.

SHADING.

Italian canvas screens are recommended as the best. The common cloth of a light brown, yellow or blue color with rollers is very good. And shades with slats are also highly recommended; this has reference, however, to slatted shades made of very light material, and that are pulled up and down the same as a cloth shade. When I began my work in the schools, I found in many buildings very heavy double inside shutters, each with a double row of slats. This was, indeed, a miserable and highly injurious arrangement. When closed for shading purposes they would cut off the entrance of light, and in warm weather also render the rooms very hot and close.

Furthermore, they presented an immense surface for dust to collect on, which is another prejudicial feature, in that dust, together with the moist breath of the school children, constitute a most fertile soil for the development of bacteria or disease germs. Afterwards, when by instruction from the Board of Health to communicate the villainous condition of the Franklin School building to the school board, I found that those inside shutters were all taken out of every building excepting the east section of the Edwin Ziegler building, on Douglass and Tenth street, and the Thomas Severn building, on South Seventh street. Two common shades, with rollers, one from the middle and the other from the top of each window, answer about as a good purpose as any other arrangement for proper shading.

FURNITURE.

In the consideration of furniture we will include the seats, desks and blackboards. There we find one of the greatest items for sanitary reform in the whole field of school hygiene. The desks and seats should

be single, each accommodating but one pupil, of proper height and proportion; a correct relation must exist between the two; and, furthermore, a correct relation must exist between the desks and seats and the pupils who occupy them. There will be invariably some small and some tall children with a variety of intermediate sizes between them in the same room and grade. In the first place there should be from five to eight different sizes in each room. If this could not be done, then three well-regulated sizes would improve the matter very much. The following proportions should be secured, viz., the height of desks from 17 1-2 to 31 1-2 inches, height of seats from 12 to 21 inches, distance between seat and desk from 6 to 10 inches; the edge of the seats should fall about two inches inside of the edge of the desk, and the point of the elbow of the pupil should be from 1-2 to 1 inch below the edge of the desk; fixed desks should have a slope of about 45 degrees.

In our schools we find height of desks from 20 to 30 inches, height of seats from 12 to 24 inches, distance between seats and desks from 8 to 12 inches, relation of edge of seat to edge of desk from 3 inches inside to 3 1-2 inches outside, and the relation of elbow to edge of desks from 0 to 7 inches below. This shows that the height of the seats and desks, so far as the two extremes are concerned, would be about right, providing there were a number of intermediate sizes between the two. By my examination I think I found only about three distinct sizes, and only a few of one of them. In many of the primary departments the size of desks and seats are used that are used in the secondary or still more advanced grades. When we come to the distance between the seat and desk we find this generally too great, thus bringing the elbow of the scholar entirely too far below the edge of the desk, which necessitates or prompts the pupil unconsciously to raise one shoulder and assume a side and contorted position; which no doubt in many cases produces

curvature of the spine and severe eye-strain, inasmuch that, instead of having his work squarely before him, the scholar will bring one eye closer than the other to his work, and he views it in a sidelike manner, which compels his eyes to strike simultaneously two different foci. This constrained or contorted position will promote engorgement of the blood-vessels of both the brain and eyes. Furthermore, in the placing of the desks and seats we find this done very improperly and carelessly, when we observe that, instead of the edge of the seat being just two inches inside of the edge of the desk, there exists a distance all the way from 3 inches inside to 3 1-2 inches outside, which also makes the pupils lean forward and assume an unnatural position, which is apt to bring about deformity and eye-strain.

A great deal of mischief may be done by having the blackboards in an improper location, as well as requiring the scholars to read and copy from the same at a distance beyond their easy vision. Some may be able to see and read with perfect ease from the extreme rear part of the room, whilst others will find it extremely difficult and a torture to see and read from the middle of the room. These different capacities of sight should be made a study by the teachers so as to seat their pupils accordingly.

The blackboards should be directly in front of the pupils, and not to either side of them, so as to force them to turn in their seats. They should not have a polished surface, and no other color of crayon than black on a white surface or white on a black surface should be used. They should be in a well-lighted location, yet not receive the direct light of the sun. Our pupils have to do a great deal of blackboard work, and where proper conditions and eye capacity is not observed much injury to the eyes of many will follow.

I should have stated under the subject of light that light should not strike the pupil from the front or back alone, but from the left side

or both from the left and rear, when from the front it is too dazzling and when from the rear or right alone the person or hand and arm of the scholars shade their work.

(To be Continued.)

Society Reports.

CINCINNATI OBSTETRICAL SOCIETY, OCTOBER 25, 1894.

Continued from last number.

Dr. Palmer: The first case I think of reporting I presume no remarks need be made about, but it was one of the strangest cases I ever saw. It happened in the hospital, and the child was born dead in consequence of a foetal malformation. The head presented and was delivered, but there was great delay in delivery the body of the child, which required a great deal of traction to be made of the axillae of both sides. The child was living at the beginning of labor, but became more feeble during labor. Inspection shown it was malformed, its belly being unusually enlarged, containing a pint or more of ascitic accumulation. I directed a post-mortem examination to be made, and there was found the considerable ascitic accumulation, and both kidneys had undergone a cystic degeneration, only a trace of kidney tissue being left. There was a little urine in the bladder. It was a mercy the child was born dead, for it could have lived only a few hours, if it had been born alive.

The other case happened a week ago last Tuesday. I was telephoned by a brother practitioner to see a case which seemed to be dying. I had to lecture at four o'clock, and I saw the case with him at half-past five. The patient was still alive. What seemed to be the matter was extra-uterine pregnancy. When the physician in charge of the case was called in the morning, from the size of the

uterus, and not being able to make out any other symptoms, he thought it was an abortion, but he abandoned that idea at noon when he was recalled. There was evidently much internal hemorrhage, although there was only a mere trace of blood at the vagina. At about 3 P. M. she was pulseless from internal hemorrhage. Owing to the fact that the pulse of the patient was slightly better at half-past five than two hours previous, and owing to the fact that it was then dark and no preparations were made we agreed to postpone an abdominal section until next morning. When I opened the abdomen the next morning, I found, as I suspected, a dark-colored peritoneum, and when this was incised there was expelled, when the patient was turned upon the side, perhaps a quart and a half of clotted blood. I put the patient then upon her back, and detached the sac containing the ovum, and ligated it, taking out the Fallopian tube, ovary and sac. The extra-uterine pregnancy was in the right tube near the uterus, extending down into the folds of the broad ligament. The tube was ruptured to the extent that I could easily introduce my finger, extending also in the folds of the broad ligament. I trans-fixed the right broad ligament completely, so as to excise the ovary, tube and sac, but after that I noticed there was yet some oozing. After much manipulation, I stitched the pampiniform plexus in two places. By that time I thought the patient was dead. She was absolutely pulseless, and I could not see her breathe, and she looked like a woman who had been dead for several hours. However, I proceeded to close the abdominal incision, having had injected about 15 or 16 syringefuls of whisky in the thigh and arm. In this pulseless state the patient was put to bed. Having injected a pint of hot salt water into the rectum, she began to rally, and is now rapidly on the way to recovery. The case illustrates that the only thing to do in that class of cases is to make the abdominal section and ligate the bleeding vessels. The pregnancy was supposed to be in the third month,

but I think it must have been more than that. The foetus proper I could not find. I suppose it was cast out in the peritoneal cavity and lost in the clots of blood.

Dr. Hall—Mr. President: I report a case of operation for ovarian tumor during pregnancy. I was called on the tenth of August, last year, to Greenville, Ohio, to see a patient with an abdominal tumor. The woman was 37 years of age, the mother of three children, the youngest 19 months old. She had noticed the enlargement for about three and a half months. I was not able to go for a week or so after the doctor asked me by letter to see his patient, and when I arrived the patient said she had already made the diagnosis, that she was pregnant, and that was all that was wrong; but she could not understand why she was so very large, for if pregnant she could not be more than four months so, because she usually felt the movements of the child at four months. However, they were anxious for me to examine the patient, which I did. I had no difficulty in outlining the uterus, apparently the size of a three-months' pregnant uterus. There was present a tumor considerably larger than an adult head, which had, apparently a very thin wall. It was in the midst of the hot weather, and I could not see why the patient could not wait at least until the hot weather was over before the operation was made, which I advised because of the rapid growth of the cyst. On the 19th of September the patient entered my private hospital, and on the 25th of September I operated, the tumor and contents weighing twenty-five pounds. The tumor itself weighed three and a half ounces. It was the thinnest-walled tumor I ever removed. It had a long pedicle, not a single adhesion, and the opposite ovary was healthy. I tied an inch and a half away from the uterus, but to my chagrin, an hour and a half after the patient was in bed, she had labor pains. The contractions of the uterus continued for about 24 hours, but at no time was there loss of blood per vagina, and the pain was controlled by morphia, grain

one-quarter every three or four hours, and it soon stopped. On the tenth of March, this year, the patient was delivered of an eleven and a half pound baby. The baby and mother are both well.

Dr. Zinke—Mr. President: I think Dr. Palmer is to be congratulated very much upon the result obtained in the case he reported. It simply demonstrates that we should not hesitate, even in private houses, to go ahead, even in extensive operations, and do what we can, for we have no time to wait. The patient often would die on the way to the hospital.

In reference to Dr. Hall's case, I may say, it is not so many years ago when it was quite a question in dispute whether we were justified in removing an abdominal tumor during pregnancy, but the results obtained during the last few years, in opening the abdomen even in pregnancy, have been such that when a tumor is found during pregnancy it is often our duty to interfere. The majority of cases recover. I have had but one case, and she recovered promptly, when some three weeks after the operation, and was delivered of a well-formed child at the end of the normal period of pregnancy. I think no excuses can be made for letting a woman advance in such cases with a tumor. There is no danger of the cyst being ruptured in such cases as Dr. Hall reported. Even if a miscarriage does take place after the removal of a tumor, the woman's chances are much better, for there is no reason why she should die after a miscarriage following an abdominal incision any more than after an ordinary miscarriage.

Dr. Hall—Mr. President: In reference to the case reported by Dr. Palmer. It is always a very grave question as to just when to operate, when you are called to see a case in such condition as the one he saw, when we consider the fact that the patient was apparently dying at four o'clock, and then at half-past five, after his arrival, was apparently better. The diagnosis was clear, and evidently the patient had lost a large quantity of blood. I was once placed

in a similar position myself; I have reported the case in detail. In that case I waited for the patient to react. She did apparently do so, and I operated eight or ten hours afterward. I saw her at ten o'clock at night, and operated early the next morning. At the time of my visit the patient had a pulse of 148 or 150, and the next morning we could count the pulse at 140. I gave her ether, operated and turned out a large quantity of blood clot, a foetus four and a half inches in length, placenta and tube; the patient recovered, but I think she would have had a better chance had I operated the night before. I think the amount of blood lost during the night more than counter-balanced anything gained by the delay, and if we had given ether and operated immediately I believe the patient would have gone through the operation better. When I saw her at first, the pulse was feeble, because of shock. The rupture had taken place shortly before. In those cases where there is pain and shock the feeble pulse is not due to the loss of blood, for they do not lose sufficient blood in half an hour or an hour to produce that result, but to shock. Eight or ten hours afterward, when there is a pint or more of blood in the abdomen, then they are in a condition to have a rapid feeble pulse from the loss of blood. Although the patient recovered, I think, as I said before, it was under less favorable circumstances than if I had operated at once. Everyone hates to operate when the patient seems dying at the time, but in a ruptured tubal pregnancy, where we know what we will find, if the patients do not die on the table from shock, they usually recover. Our actions must be based on the individual case, but, in a general way, the hemorrhage should be controlled the first moment possible, whether it is night or day. I do not hesitate a moment, so far as light is concerned; I would not hesitate to operate by one candle, for it is done by the sense of touch chiefly. Deferring the operation for the patient to get into a better condition is not likely to be best.

Dr. Zinke—Mr. President: I just wish to rise to ask a question of the gentleman as to the symptoms of extra-uterine pregnancy. In the last case I saw the symptoms were ushered in by severe pain, vomiting, diarrhoea and bloody stools, and I want to know whether in their experience any of the members have encountered something similar to that. The vomiting was excessive and the hemorrhage from the bowels quite profuse at the same time, so that there was almost a suspicion that it might be purely and simply an intestinal hemorrhage. The duration of the pregnancy was not quite two months, and the tube was torn from the horn on that side. The tube was perfectly normal, and there was a virgin os.

Dr. Palmer—Mr. President: I concluded to wait until we were better prepared to operate. Had I operated that night, I believe the patient would be dead to-day. We found two rents, one in the broad ligament, and one in the Fallopian tube, and it required a more careful inspection to find all the sites of hemorrhage than we could have obtained in the artificial light. The patient would have died from hemorrhage and shock, if the section had been prolonged from a bad light. It was a God-send that I postponed the operation for better light.

MOBILITY IN FRACTURES.

M. Bumm is an advocate of very moderate motion in fracture treatment, claiming that hasty immobilization often leads to unpleasant results, while, on the contrary, early massage and joint action, with gymnastics, favor restoration of muscular strength, articular motion and consolidation of the callus.

He authorizes massage throughout treatment. When the point of fracture is close to the joint he allows the dressings to remain undisturbed until the tenth or twelfth day, or a longer time with oblique fracture through the humerus or femur.

(Progres Medicafe, Dec. 11, '94.)

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PHILADELPHIA, FEBRUARY 16, 1895.

SOMETHING MORE ON "SURGICAL SINS."

At the late meeting of the American Medical Association in San Francisco Dr. John B. Roberts, the chairman of the section on surgery, employed as a theme for his inaugural what he designated "Some Surgical Sins," and then unsparingly applied the lash of bitter invectives on those members of the surgical craft who, it would appear, of late years have been applying the surgical art to a needless and almost cruel extreme. At the same time he paid his respects to those who are commercializing medicine, running private sanitariums and wringing extortionate fees from their patients.

This address of Dr. Roberts must be conceded, in many respects as most timely and necessary, for every unbiased and thoughtful member of the profession, must concede that surgery has been vastly overdone of late, and that the time has come when silence may be construed as approval; therefore, the voice of re-

monstrance and protest should ring forth in no uncertain sound on this great and growing evil. The indifference of the profession on this subject has encouraged enthusiastic operators to press on and open up "new fields" (?) for their desperate exploiting, so that to-day, it is positively appalling and awful to read the reports of some surgical operations, which, under all other than rare and exceptional circumstances, are scarcely less than criminal.

This is particularly noticeable in the department of female surgery; in which, emboldened by the immunity with which a woman will survive spaying, parting with her sexual organs—as essential to her moral equipoise, as are the testes in the male—now, on the flimsy pretext of securing "better drainage" the inhuman procedure of sacrificing the uterus is resorted to, and the practice is so rapidly spreading that unless the profession give an early and emphatic note of warning the number of women so mutilated will soon be very large.

The modern shifting notions on pathology are largely responsible for the present state of things; the ever-haunting phantom of infection, from simple lesions, has led to the conclusion that local and radical measures are called for in the treatment of conditions which in the usual order of things are remediable through simple means, with the aid of systemic therapy.

But, those who live in glass houses should be cautious how they throw stones, and those who have "out-Heroded Herod himself" on the antiseptic theory should be circumspect in their utterances on conservative surgery. Dr. Roberts, we know, is among those who promised great things from the surgery of the brain, through the aid of antiseptics, cerebral-localization, etc.; though, as a matter of fact, it is now well known that brain-surgery is extremely dangerous to life; that antiseptics, the meninges nor medullary substance will not tolerate; and, that definite motor areas in the cortex, is by no means a settled question.

Dr. M. Price, in a late issue of the *Medical and Surgical Reporter*, "locked horns" with Dr. Roberts, and in a scathing rejoinder alleged that the latter had "grossly misrepresented the profession." This is strong language, which, it does not seem to us, is warranted by facts.

On the contrary, when a fellow of a craft has the manliness and courage to come forward and criticize or censure his own colleagues, and give utterances to views and opinions quite certain to affect his own income, he deserves our highest encomiums.

Dr. Roberts only erred when he broke away from his subject, and condemned private hospitals and disapproved of charging high fees to the wealthy. There are not enough general hospitals to afford places for all our brainy, highly cultivated brethren who follow surgery or other departments of medicine; besides, it should not be forgotten that except public hospitals, supported by the public funds, most others are essentially private, commercial concerns. A medical college opens, and it at once starts an hospital. Drs. So and So get together, wring a few thousand dollars out of someone, run fairs, concerts, theatrical shows, pass the hat around and so on; besides, under the guise of charity, keep a number of private rooms for pay-patients, thereby getting their hands down into the pockets of the outside general practitioner.

No, we have far too few private hospitals. If the profession would protect itself against the wholesale privacy of large hospitals, practitioners should unite in small numbers and open sanitariums numerous in every quarter.

The tendency is to a concentration, exclusion and an aristocracy of the few, in medicine, to the serious detriment of the many.

If the latter are sufficiently supine and indifferent in this matter no one is to blame but themselves.

On the fee question, it is surprising that any sane member of our profession can recommend that the same fee be demanded of the struggling, poor father of a family, as the

easy, comfortable business man or the opulent member of society. Most members of our profession, being humane and charitably disposed, are obliged to contribute a considerable proportion of their time to the needy and destitute. It is only possible to do this by exacting, from those able to pay, enough to provide for ourselves and families. This has been the unwritten law in the past, and there does not seem, now, the slightest shadow of excuse for abrogating it.

USES OF SALOPHEN.

Salophen is a product obtained by pouring phosphoroxchloride into a melted mixture of nearly equal parts of salicylic acid and nitrophenol, heated to 170 degrees.

Salophen contains about 51 per cent. of salicylic acid, and appears in small, thin, colorless laminae, combining the properties of phenol and salicylic acid in such a manner as to secure the therapeutic advantages of each without the toxic effects of either. It is nearly insoluble in cold water, more soluble in warm water and fairly so in alcohol and ether.

Salophen is easily decomposed by the pancreatic ferments and also some of the other fluids of the body. Acid gastric juice does not react upon it. Doses of 150 grains of salophen are well borne by dogs; the health of the animals remaining undisturbed, the appetite continuing normal.

The dosage of salophen ranges from 45 to 120 grains a day, in divided doses, some practitioners giving 15 grains three times a day, in the beginning, and increasing it by the same dose five or six times a day. Bicarbonate of soda may also be given with the salophen.

The preparations of salophen most usually employed are the dry powder, and the pill or tablet form; the most available for general use are the tablets and the latter may be advantageously combined with phenacetine.

The general clinical action of salophen is such that its applicability

in cases of acute rheumatism, while the febrile phenomena are marked, exceeds that of almost any other drug. It reduces the fever to normal on the second or third day of treatment. Ordinarily no objective symptoms remain after the seventh day. In cases where albumin and granular casts are present in the urine during the early stages, these disappear as the general condition improves.

Salophen has been used also in cystitis, sciatica and the neuralgias. It acts very promptly and positively; though with the greatest efficiency in acute rheumatism. In the latter disease pains in the joints often disappear in less than a week. Effusions into the joints are readily absorbed and large exudations become easily amenable to other treatment.

As salophen is not decomposed until it reaches the intestine it is presumed to have no possible action upon the stomach, and, as a matter of fact, no gastric troubles arise, which proves its worth over and above salol or salicylate of soda. The remedy may be given continuously in large doses and for long periods of time without causing nausea, vomiting, loss of appetite, vertigo, or tinnitus. Salophen is eliminated by the kidneys.

One of the most remarkable therapeutic effects of salophen lies in its ability to prevent complications of endocarditis, pericarditis or pleuritis. No cases of intolerance or gastric disturbance have been reported.

ERRATA.

In closing paragraph of editorial on page 68, issue of January 26, through a typographical error, the word importance is misused for impotence.—Ed.

The Philadelphia Board of Health.—The Councils of the city of Philadelphia having appropriated \$15,000 for supplying antitoxin, it is the intention of the Board of Health to establish a bacteriological laboratory.

Correspondence

THE CARL SEILER THROAT FORMULA.

What is Dr. Carl Seiler's (nose and throat specialist) alkaline and antiseptic formula? F.

Dr. Carl Seiler's formula is as follows:

R—Sodium bicarb.....	oz. i
Sodium biborat.....	oz. i
Sodium benzoat.....	gr. xx
Sodium salicyl.....	gr. xx
Eucalyptol	gr. x
Thymol	gr. x
Menthol	gr. v
Oil gaultheria	gtt. vi
Glycerin	oz. viiiss
Alcohol	oz. ii
Water.....	q. s. to make 16 pints

M.

Cincinnati, O., Jan. 23, 1895

Dr. J. William White,
1810 South Rittenhouse square,
Philadelphia, Pa.

My Very Dear Doctor:—I received your letter recently concerning the removal of testes for hypertrophied prostate.

Since that time I have kept informed upon all things pertaining to this new work, so far as I have been able.

The following communication was just received from the physician who has charge of the patient whose testes I removed on October 26, 1894:

January 22, 1895.

"Dear Doctor:—The patient whose testes you removed on the 26th of October, 1894, for hypertrophied prostate, has no obstruction, straining or severe pain, which he formerly had while urinating. He passes water still too freely, and complaining some of burning and itching after micturition.

"I would say that he is well and doing nicely.

"Very Fraternally,

"L. M. Green."

Thus you see that the results in this case verify those of the others that have been reported.

I am thoroughly satisfied that this operation is one that, sooner or later,

will become generally adopted for the relief of hypertrophied prostate.

I am also satisfied that to you belongs the credit for first suggesting it; surely for doing the experimental work necessary to establish the facts concerning it.

You may use this letter in any way you deem proper.

I am, very truly,
MERRILL RICKETS.

THE KINGZETTE SULPHUGATORS.

We are in receipt from the American and Continental Sanitas Company, of New York City, a new form of candle for the purpose of fumigating and disinfecting. The contrivance consists of a fabric coated with sulphur; they are intended for fumigating cellars, closets, wardrobes, cupboards, lofts, kennels, carriages, stables, poultry houses, bird cages, etc., etc.

These "sulphugators" burn much more quickly than solid sulphur candles, on account of the freedom with which the air necessary for combustion gains access to the burning sulphur. They are extremely useful for fumigating where small quantities of sulphur only are required. Kingzett's "sulphugators" are put up in two sizes: Small size, 10 in a box, with holder, retail price, 25 cents; large size, 4 in a box, with holder, retail price, 25 cents. A great deal of bother and fuss in hunting up old pans in which to burn ordinary sulphur is done away.

When larger quantities of sulphur are required use the "Sanitas" pure sulphur candles (water jacketed), 1 pound, 25 cents.

This water jacket was placed on the market by this company over a year ago, and revolutionized the subject of disinfection of rooms. After small-pox, scarlet fever and other contagious diseases it is extremely useful. The success of these candles has been immense. The ease of application, the low price and the efficiency of the disinfection have placed these methods of fumigating far in the front. To once try the candles is to become convinced.

Book Reviews.

A MONOGRAPH ON DISEASES OF THE BREAST, THEIR PATHOLOGY AND TREATMENT. By W. Roger Williams, F. R. C. S. London: John Bale & Sons, Pubs.

We must regard this work as one of the most important and valuable that has thus far issued from the press on the subject it deals with.

The style is clear, the matter concisely expressed, practical and original. The author begins by giving a brief resume on normal development and the atypical; then takes up that terra incognita, the causation of cancers. This constitutes one of the most valuable and highly interesting chapters.

We are informed that now, at the present time, there are in England and Wales alone, more than \$10,000 cases of cancer. The influence of sex is emphasized, it being claimed that malignant disease is twice more prevalent in women than men. Virchow's theory of cell-gemination and Cohnheim's views of aberrant structure hyperplasia are declined as unsatisfactory. The claims of mechanical irritation are repudiated. The author believes that the agency of micro-organisms need not be invoked in the genesis of cancer, and alleges that their presence here is no more necessary, than in the eruption of a tooth or nail, as all the pathological phenomena of cancer can be explained without them.

Senility is not admitted as a causative factor, *sui-generis*, as his vast statistical columns show, that the malady commits its greatest ravages under 50 years, and that it is rare in old age. Cooper's dictum, on the influence of celibate life is refuted. The rich are more liable to cancer, the writer says, while the poor are comparatively exempt. Cancer, we are told, is on the steady increase, while the plague and smallpox have quite disappeared, and tuberculosis yearly becomes less frequent. This fearful scourge, we are informed,

commits its greatest ravages "on the temperate, regular-living, rather than the dissolute and dissipated," and Moore's statement is fully supported that "cancer is eminently a disease of persons whose previous lives have been healthy and whose habitual vigor gives them, otherwise, the prospect of a long life."

Coming to the special pathology of the breast, the latest views of the most distinguished authorities, with his own conclusions, are set forth at length. The various types of neoplasms of the mamma are described in detail, and the clinical features of each stated.

On treatment, he is a strong partisan of early and thorough excision, in every case removing the pectoral fascia, opening widely the axilla and clearing out the lymphatic ganglia. The present pathological doctrines he interprets as pointing emphatically to the possibility of cure of cancer by radical and early operation.

Gussenbauer found cancer elements in the axillary glands in mammary disease, whether there was apparent implication of them or not; while, to offset these views, Winna-water's statistics and experience are included, in which, it appears, that, even when the so-called complete operation was done, yet the average of life after operation was only 13 months.

We have here only sketched a few of the many interesting and vital problems which are abundantly scattered through this unique and timely treatise, which to be fully appreciated must be read and studied from the introductory to the last page, for there has been no work offered the profession of late years which so largely fills a positive want and settles so many unsettled questions in connection with mammary cancer.

T. H. M.

TWENTIETH CENTURY PRACTICE. AN INTERNATIONAL ENCYCLOPEDIA OF MODERN MEDICAL SCIENCE. By Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In Twenty Volumes. Volume 1. Dis-

eases of the Uropoietic System. New York: William Wood & Company. 1895.

This is the first volume of what may justly be termed the crowning medical publication of a century rich in the literature of the healing art. The last great work of this kind, devoted to internal medicine, that of Ziemssen, was published before the new science of bacteriology was developed; and it is fitting that now the publishers of the English translation of that work should bring out a new encyclopedia of modern medicine as it is at the end of the nineteenth and beginning of the twentieth centuries. As we learn from the announcement, the work will consist of twenty volumes, the first twelve being devoted to the systematic affections, including diseases of the skin and nervous system, and the remaining eight containing treatises on the infectious diseases. The writers have been chosen from all the countries of Europe as well as from America, and are almost without exception men of international reputation who have won for themselves a position in the first rank of medical teachers.

Volume 1, which has just appeared, treats of diseases of the uropoietic system. The first article, on diseases of the kidneys, is from the pen of Dr. Francis Delafield, of New York. The classification of kidney diseases, which the author makes, is extremely simple, and assists the reader greatly in arriving at a clear understanding of the morbid changes which these organs undergo. The diseases of the renal pelvis, the ureters and the bladder are presented in two excellent articles, by Mr. Reginald Harrison, London. These are followed by two systematic and lucid treatises on the diseases of the prostate and male urethra, by Dr. G. Frank Lydston, of Chicago. The diseases characterized by changes in the urine (haematuria, cystinuria, chyluria, pyuria, etc.) are discussed by Mr. Hurry Fenwick, of London, an acknowledged authority on these affections. The albuminuria of nephritis and diabetes mellitus are not included in this article. The closing

treatise of the volume is one on the diseases of the female bladder and urethra, by Dr. Howard A. Kelly, of Baltimore. In this article the author describes at length his new method of examination of the bladder and ureters in the female, which we believe has never before been described in any text-book or treatise.

The illustrations, of the first and last articles especially, are beautiful in design and execution.

BOOKS AND PAMPHLETS RECEIVED.

BIOGRAPHICAL SKETCH OF PROF. JOHN M. SCUDDER, M. D., from Eclectic Med. Journal, Cincinnati, O.

"DIPHTHERIA ANTITOXIN," Schering. From Schering & Glatz, New York.

THE TRUE FIELD OF DUTY OF THE RAILWAY SURGEON. By Clark Bell, Esq., Vice-Chairman Section of Medico-Legal Surgery, Medico-Legal Society. (Advance Sheets of December Number of Medico-Legal Journal.)

HYGIENE OF THE ANUS AND CONTIGUOUS PARTS. By J. Rawson Pennington, M. D., Chicago. Reprinted from the Journal of the American Medical Association, January 12, 1895. Chicago: American Medical Association Press. 1895.

DR. J. C. WILSON IN CHARGE OF JEFFERSON HOSPITAL.

James C. Wilson, M. D., has been elected superintendent of Jefferson Medical Hospital, to fill the position made vacant by the resignation of Dr. E. E. Montgomery nearly a year ago.

Dr. Wilson is professor of practice of medicine and clinical medicine at the Jefferson College. He was born March 25, 1847, and graduated from Jefferson Medical College in 1869.

In 1876 he became physician to the Philadelphia Hospital, and has been connected with Jefferson College Hospital for a number of years. He is a distinguished member of the Pathological Society, Obstetrical Society, Philadelphia County Medical Society, American Medical Associa-

tion, American Philosophical Society, Association of American Physicians and Pathologists, Philadelphia Neurological Society, etc.

At the meeting of the Board of Trustees it was decided that the members of Finance, College and Hospital Committees should be elected by the board instead of being appointed by the president, as has been the practice in the past.

Electro-Therapeutics.

IN CHARGE OF
DR. S. H. MONELL, New York.

A PLUNGE INTO ELECTROTHERAPEUTICS. (Continued.)

In our last article we left a promising electro-therapeutist struggling with the technique of metallic electrolysis. His electrical outfit included a recent purchase of eight copper tips, together with his well-known battery described in the catalogue as follows: "Battery No. 3. More desirable for a physician; has a large coil, rapid vibrator; gives three variations of the current; has solid oak case, and is furnished with handles, cords and sponge electrodes, for \$20 list." (Discount to the profession, 25 per cent.)

He has attempted to use the copper tips by screwing them on the wood handles, from which, with great and original ingenuity, he has unscrewed and removed the sponges. Owing to a disproportion in size they do not fit, and he writes a complaint to the makers in New York. By mail a week later he learns that a special handle is required, price \$2; and, having determined that no obstacles shall stop his scientific employment of the grand therapeutic agent he has so recently discovered, he orders a pair immediately. When they arrive he prepares to abandon medical prescriptions and topical applications for all forms of catarrhal conditions of mucous membranes, and rely exclusively upon "Electrolytic Cathaphoresis." Cases wait in his reception room, and he gets the battery ready, attaches a copper electrode to each new handle and a handle to each cord.

Now let us again attack our old case of endometritis. One pole must be "intra-uterine," the book says; and, being an expert gynecologist, there is no trouble in placing it in position. The other pole, of course, "may be held in the hand." Very simple. Certainly electricity is beautiful when one has all the requisite appliances! Now the patient is all ready and the current may be turned on!

From a feeling of sympathy for all parties concerned, I draw the curtain upon what happened when that energetic faradic current was turned on.

The patient had been an old family friend. She had before hopefully tried many things the doctor had recommended; but it is her present view, in which her physician entirely coincides, that "cupric electrolysis" is not suited to her case. She does not mean to disparage the remedy, but is inclined to regard it as a little worse than the disease. Between the two her choice is endometritis every time.

I would give a good deal to hear the doctor's private opinion about her "foolish hysterics" just when he had everything so thoroughly prepared to treat her case—but Dr. Holmes is a discreet practitioner, and he now gives her a sugar-coated placebo.

The doctor was naturally a student. In employing a new remedy he made it a point to read up the printed matter very fully. He pursued the same custom now. The more he read about medical electricity the more favorably it impressed him.

It appeared to be even more efficacious than he had supposed. About this time he also made an astonishing discovery, viz.: that his "three-current" battery was one kind of electricity only, instead of three varieties, and did not supply any galvanism at all. Professional enterprise demanded that he should have every modern aid to medical science, and he recognized that the future called for liberal expenditure rather than parsimonious old-fogysm.

After some correspondence the

makers allowed him \$5 for his second-hand battery, and sold him a 16-cell combined galvanic and faradic apparatus for \$38. As the catalogue states, "This combination enables the physician to use either form of current at will, and in this respect is especially desirable for office practice or for the specialist."

This was what his enlarged experience told him that he required, and with it he foresaw that he would naturally drift into becoming an electrical specialist later on. It weighed four times as much as his first investment, and on his office table its appearance was exceedingly gratifying. He now felt prepared for difficult cases of all sorts.

One was soon found—an elderly lady—chronic sciatica of 30 years' standing; but, having two batteries combined instead of but one, he was at a loss to know which of the two to use. Here the doctor's studious turn of mind came to his rescue, and he secured the following guiding facts out of his library:

1. Duchennes' treatment consisted in severe faradization of the painful area, limiting the action to the cutaneous surface. After the application of the dry brush the patient is astonished to find all pain of the sciatica gone, and, though he tries to provoke its return, it does not do so. One, four, six or eight treatments will cure.

2. Von Ziemsen says that in the galvanic treatment of neuralgic pains large electrodes should be used; and it has even been proposed to use electrodes large enough, if possible, to cover the whole of the affected area at once.

3. Steavenson says this painful affection is particularly suited to treatment by the electric bath. A course of twelve baths usually suffices to effect a cure. The ascending direction of the current should be preferred.

4. Hutchinson states—Galvanism will relieve almost every case. Use a descending current. Faradism is to be strongly deprecated here. In ordinary case, place foot in basin of water, with negative pole. Press a small carbon wash leather-covered

button firmly over nerve's exit from ischiatic notch to localize the current in the nerve. Increase dose to all patient can bear. Apply 30 minutes daily. Three weeks will cure.

5. Dr. A—— advocated the treatment of sciatica by the strong galvanic current.

6. Dr. B—— was in the habit of using the faradic current in the treatment of sciatica.

7. Dr. C——. Begins with very small currents of galvanism, say 11-2 milliamperes or less, cautiously applied for one minute. Gradually increase to 3 mil. for three minutes, when improvement takes place. He ignored the matter of current direction, and believed that the idea that it was of any importance was worthy only of the Dark Ages.

8. Dr. ——— advised the rest cure, followed by electro-cautery applications to the painful points, and later electrical massage.

9. Dr. E—— pounded the course of the nerve with long, thick percussion sparks. A few treatments gave permanent relief. This surpassed all other methods and gave quicker and better results.

Doctor Holmes thoughtfully read over these rules for the electrical treatment of his sciatic patient.

They were somewhat more prolific than he had expected to find. He examined his apparatus. He had, besides the new "combination," the same cords, wood handles and sponge electrodes that he had before, and the set of copper tips purchased when he attempted to perform cupric electrolysis with his original faradic battery. How should he proceed? Common sense principles helped him out of his dilemma, and he adopted a process of eliminating the impossible.

For instance, in Rule No. 1 he had no "dry brush," and did not know what one was. Hence Mrs. B—— was spared the infliction of Duchennes' remedy. In No. 2 he had no electrode large enough to cover Mrs. B——'s whole limb, hence Von Ziemssen's plan was out of the question. No. 3 spoke of an electric bath. He had no such affair; and, moreover, the idea of his bathing a fe-

male patient was preposterous. No. 4 came nearer the mark. He could provide the foot basin of water, and possibly one of the sponge electrodes might serve in place of the missing carbon button covered with wash leather; but he did not fail to note the direct conflict between No. 3 and No. 4 in regard to the direction of the current. He was too cautious now to risk an ascending current when a vice versa was required, and he had no way to prove whether Steavenson or Hutchinson was right. Observing the objection to faradism recorded in No. 4, he was glad he had not used it as Duchenne advised.

No. 5 was simple, straightforward and much to the point. He liked it on these accounts, and laid it aside for future reference. No. 6 rather astonished Dr. Holmes, and caused him to lose confidence in the man who could recommend faradism for sciatica. No. 7 looked safe, and at once appealed to his recently-developed bump of caution. The brief time required (one minute) would be a great convenience in his office practice, and he noted with satisfaction that here was an author who helped him out of his quandary about current direction. If Dr. C—— ignored it, so would he.

Arriving at Nos. 8 and 9, he puzzled over them at some length. He knew just what a cautery application was, but he sought vainly in the directions accompanying his 16-cell galvanic and faradic combination for any hint as to how to produce it with sponge electrodes. Several experiments satisfied him that he did not quite understand how to do it. "Rest" and "massage" were simple enough, but he did not like to adopt No. 8 and omit the cautery. It would seem like the play of Hamlet with Hamlet left out.

No. 9 excited his curiosity. It "surpassed" all other methods, and in this respect he felt that Mrs. B—— would be pleased; but what were long, thick, powerful percussion sparks, and how could he apply them with his new battery? Should he attach the sponge electrodes to the faradic or the galvanic side of the combination? He had Mrs. B——

wait while he made a private trial of both, but time was too short to work out the problem fully, and he decided to begin with No. 7, and if it failed to try No. 5.

The following day's mail contained this letter from Dr. Holmes to the manufacturers from whom he had purchased the "Combination:"
Messrs. Blank & Blank.

Gentlemen:—I recently ordered from your firm a 16-cell combination battery. On attempting to treat a case of sciatica with it I fail to find any directions about the milliamperes. Please inform me how many each cell equals, and what a milliampere amounts to. I endeavored (following a leading authority) to apply 11-2 milliamperes for one minute, but, although I employed 5 cells at first, and finally 10 and afterwards the entire 16, I was unable to start the vibrator into action. The battery is evidently out of order. Please send me full instructions at once and oblige
Yours very truly,

JAMES W. HOLMES.

While awaiting a reply he chanced upon an article in a medical journal stating that no therapeutic application of the constant current should be made without the presence in the circuit of a reliable milliamperemeter.

S. H. MONELL.

44 West 46th st., New York.

Medicine.

DR. E. W. BING, Chester, Pa.
COLLABORATOR.

EMPHYEMA OF THE FRONTAL AND ETHMOIDAL-SINUSES.

M. Muller distinguishes the varieties of empyema in the frontal sinuses, into the acute and chronic.

The first is very rare. He saw but three cases, all of which ended mortally. In these cases the primary causes seemed to arise from an attack of influenza. The onset is sudden, hemicrania violent, with lancinating pain propagated along the nose. Later ptosis, with tumefaction of the upper-lid; exophthalmia and diplopia.

The chronic form may succeed the acute, or pursue a torpid course from the beginning. A localized cephalgia on one side, over the eye, is quite characteristic. Later, when the emergent duct is completely closed, the cavity is dilated by the retained products of inflammation, which may possibly make an escape by the inner side of the orbit.

For this variety Fuch recommends that the anterior wall of the sinus be completely cut away, the pus drained off and the cavity so completely curetted as to leave none of the graulating residue of ulceration.

All his cases did well so treated. M. Muller, however, prefers to enter the sinus on its inferior aspect.

Empyema commencing in the ethmoidal-sinuses may make its way forward, into the orbit, in two ways. In one perforation occurs after tumefaction of the upper lid and exophthalmia; in the other the ethmoidal cells are so distended as to produce a fullness at the inner angle of the eye, sometimes mistaken for a neoplasm if extreme caution is not taken. Muler saw, in two of these latent cases, pus, proceeding from the themoid, open into the lachrymal-sac.—*Le Mecedri-Medical*, 12th Dec., '94.

TREATMENT OF BUBO.

M. Laub has reported a series of cases of bubo, which he has treated with great success by Welander's method. This consists in first, making several narrow, deep punctures and evacuating the pus, then injecting deeply a 1-1000 solution of nitrate of silver through each puncture, after which a compress and bandage are applied. Reaction is moderate, inflammation ceases and in about 10 days cure is complete.—*College des Med. de Vienne; Mercredi-Med.*, 19th Dec., '94.

TREATMENT OF ACUTE PLEURISY.

In view of the fact that acute pleurisy is frequently the starting point

of tubercular evolution, Dujardin Beaumetz says: There are many cases of persons who have had pleurisy but in whom no tubercular manifestations have followed, and on the contrary, autopsies have shown tubercular granulations, with all the signs of inflammatory pleurisy, in which if the patients did not become tubercular, it was because the process was local. Since the action of cold will produce inflammation in other serous structures there is no reason why the pleura should be an exception. The question of origin has considerable importance in the indications for treatment.

Physicians are divided as to this question. Some advocate active measures, others simply remove the effusion by puncture if it becomes excessive. Forty years ago the treatment pursued was this: 1. Blood-letting. 2. Purgatives and diuretics. 3. Blisters. 4. Theracentesis was reserved for chronic cases. With M. Peter disappeared the last defender of the antiphlogistic method, and now general bleeding is abandoned.

Local bleeding, however, is frequently used as a revulsive. Bucquoy, in France, is the only advocate of local bleeding as an antiphlogistic measure; he takes from 300 to 400 grammes at once.

Internally salicylate of soda has been successful. Beaumetz is an advocate of large blisters.—*Rev. Medicale*.

Ophthalmology.

DR. J. A. TENNEY, Boston, Mass.
COLLABORATOR.

PYRAMIDAL CATARACT.

Mr. Treacher Collins gives in the *Lancet* the theories of the causation of pyramidal cataract advanced by Mr. Hulke and Mr. Hutchinson, with his own views upon the subject.

Mr. Hulke argues, that in infancy the anterior chamber of the eye is shallow, and the lens is nearly spherical, so that it will project quite a distance in front of the pupil. In

these respects there is in the infant's eye a striking similarity to the eye of the fish.

In Ophthalmia neonatorum, if the cornea has become inflamed and swollen, the posterior surface may come in contact with the projecting lens, and then a dot of lymph is poured out upon the latter from the inflamed cornea, or the mere contact may give rise to an opacity by preventing the proper nutritional osmose through the cornea. He thinks that the little white cones, which seem to project through the pupil in pyramidal cataract, have their origin in this way.

Mr. Hutchinson ventures the opinion that the proximity of the inflammatory action in the conjunctiva and cornea is sufficient to disturb the nutrition of the lens capsule, and so occasion deposits. He holds, that if this position is tenable, we have an interesting instance of the possibility that diseased action may, by what he calls a sort of vital catalysis, disturb a structure with which it is not in continuity, and even when the intervening cornea is unaffected.

In criticising the views of Mr. Hulke, Mr. Hutchinson says: "I cannot but suspect that we adopt hypotheses which are too mechanical when we attribute these little opacities either to corneal perforation, or to prevention by pressure of nutritional osmose. As regards the latter, we must remember that there is excess, not deficiency of growth."

Mr. Collins leans to the view set forth by Mr. Hulke, that actual contact of the cornea with the anterior pole of the lens arrests the osmose of the nutritional fluids to it in that position.

When the opacity is congenital he holds that the contact is due to the delay in the formation of the anterior chamber, which prolongs the apposition of these structures (which exists normally during a part of foetal life), after the fibro-vascular sheath has disappeared.

In infancy, when the anterior chamber is shallow, swelling of the inflamed cornea may bring about contact of that membrane with the

lens without corneal perforation. Later in life the formation of anterior polar cataract is less common, and it would seem that the cornea must then be perforated in order to have the lens come in contact with it.

Mr. Collins disposes of Mr. Hutchinson's objection, that the opacity is a growth, instead of being an interference with nutrition, by putting forward the hypothesis that the arrest of the osmose of nutrient fluids through the capsule at the anterior pole causes the lens fibres in that region to shrink, and to break up into hyaline globules and granular detritus. As a consequence of their shrinking and degeneration, the tension of the capsule at the anterior pole is lessened.

It is pretty certain that the only thing that prevents the epithelial cells that line the capsule from proliferating more quickly than they do is the tension to which they are subjected; therefore, when the tension at the anterior pole is lessened they at once begin to multiply at an increased rate, and form the mass of cells, which is the earliest stage of these opacities.

Miscellany.

FURTHER REPORT ON ANTI-TOXIN.

Soltmann reports (in *Deutsche med. Woch.*, January 24, 1895) 193 cases of diphtheria treated at the Leipzig Children's Hospital between April 1 and December 31, 1894. Of these 50, or 27 per cent., died. During the first four months, in which the serum treatment was not generally used, 28 out of 71 children died, or 39.8 per cent.; in the last five months, during which the majority of the children received the serum treatment, 22 out of 122 children died, or 18 per cent. Of this last group of cases 9 out of 33, or 27.2 per cent., not treated with serum, died, and 13 out of 89, or 14.6 per cent., of those receiving the serum treatment.

RESOLUTIONS ON THE DEATH OF DR. A. L. LOOMIS.

UNIVERSITY OF THE CITY OF
NEW YORK.

January 25, 1895.

At a meeting of the faculty held this day the following preamble and resolutions were adopted:

Whereas, In the wisdom of Almighty God it has been decreed to remove from among us our esteemed and honored associate, Dr. Alfred L. Loomis, who has been for thirty-three years identified with the progress and development of the Medical Department of the University of the City of New York, and to whose untiring energy and zeal that institution largely owes its present high position, we, the members of its faculty, hereby

Resolve, That in the death of Dr. Loomis we have met with an irreparable loss, in one whom we have ever valued as a friend, respected for his judgment and wise counsel, and admired for his strength and firmness of character, for his professional skill, his scientific learning and his literary attainments; that, while overcome with a sense of personal bereavement, we are not unmindful that the medical profession throughout the country has lost its foremost leader and the public a distinguished citizen. And be it further

Resolved, That this resolution be spread upon the minutes of this meeting, and that a copy be suitably engrossed and sent to the family of Dr. Loomis in token of our profound sympathy and sorrow.

CHAS. INSLEE PARDEE, Dean.

Fire at the College of Physicians and Surgeons, Boston.—Fire was discovered on Sunday morning, January 27, in the flooring between the second and third stories of the College of Physicians and Surgeons, Boston. The alarm was promptly given, the flooring was cut away, and the portion of the building in which the fire occurred was deluged with water. A number of pathological specimens in the museum were damaged, and the total loss from fire and water is estimated at \$10,000. The cause of the fire is unknown.

A CAUSE FOR RUINED TEETH.

A correspondent who is an authority on chemistry draws our attention to the fact that a Bradford dentist has 60,000 extracted human teeth, all in one heap, exhibited in his window. What thousands of hours of pain and moments of agony are here depicted, not to mention the ill-health consequent on the loss of these essentials to real vigor. If every dentist thus exhibited his gleanings from the jaws of suffering humanity surely the public would begin to look for first causes, and, according to the highest medical testimony, leaden pipes for conducting drinking water would speedily become an extinct species. Dr. Swan, the Medical Officer of Health, of Batley, said the other day, in speaking of the danger of leaden pipes, that they are degenerating thousands. A degeneration produced by the cruellest of slow poisons—"a poison which destroys men's bodies, minds, morals and intelligence, and from which the majority has no means of escaping."—Science Siftings.

CHEAP COLLEGE BIDDING.

We have received the circulars of the Chicago Summer School of Medicine, of which Dr. W. F. Waugh is dean. The most notable feature of this catalogue is the following, addressed to doctors:

Dear Doctor:—The college has placed at my disposal a limited number of scholarships, by virtue of which students of excellent moral character, good educational qualifications and limited means will be admitted to the classes at a material reduction from the regular fees. If you can favor us with the names of any such gentlemen we shall greatly appreciate the courtesy.

Sincerely yours,

Wm. F. Waugh, M. D., Dean.

We had hoped that this kind of underhand bidding for students was about extinct among reputable colleges. Institutions, whether educational or commercial, which have two prices, are not in good odor, and should be discountenanced.—Indiana Medical Journal.

The Times and Register.

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PHILADELPHIA, FEBRUARY 23, 1895.

WHOLE No. 859.



Original.

RETIRING PRESIDENT'S ADDRESS*.

READING, PA.

BY A. B. DUNDOR, M. D.
CLOTHING.

The outside clothing which are taken off during school hours should be hung up in a closet outside of the school room on hooks sufficiently apart to prevent one child's clothing to touch that of another. In a large number of rooms we found the clothing hung up on hooks placed around the sides of the room with the hooks only about five or six inches apart, so that all around the room the different children's clothing was hanging on top of each other. This is very wrong, since all infectious and contagious diseases may be communicated from one to another, besides, during rainy weather the clothing is damp and will impart a dampness to the whole atmosphere of the room, and thus may cause rheumatic and catarrhal disease among the children.

OVERCROWDING.

From 220 to 250 cubic feet of air, and from 15 to 20 square feet of floor should be assigned to each pupil. When the number of pupils in any room is so large as to cut down the above-mentioned capacities per capita to any material extent, then there exists an overcrowded condition.

Very few rooms will properly accommodate more than about 40, yet we find in very many rooms 50 and 60, and in all the rooms occupied the number runs all the way from 31 to 100; and the average capacities dwindled down as low as 57.12 cubic feet of air and 4.76 square feet of floor, this being, however, an

exceptional case in a room that we found in the old building at Tenth and Green streets, which building has since been torn down and an elegant building erected instead.

The lower averages, and there are a large number of them, range from 116 to 160 cubic feet of air and from 9 to 11 square feet of floor. You will readily understand what serious overcrowding means; namely, a retention of foul air in the room and a predisposition to the breeding of various diseases, defective vision, deformity and a general devitalization of the physical constitution of the scholars.

PLUMBING AND WATER-CLOSETS.

We found a number of buildings where the waste-water pipes from the wash bowls in the room are untrapped, and led into the water-closet pits in the yard, or into a sink hole in the cellar, thus establishing a direct communication between the school room and those filthy reservoirs, and the most filthy and deleterious gases may find their way into the schoolroom. Many water-closets are close to the buildings and some almost direct under the windows of the second story, and the foul gases emanating therefrom find at times a ready entrance into the school rooms. Some of the worst ones in this direction have been charged and removed since my visit.

MENTAL PRESSURE.

Between the age of 12 and 17, from 5 to 6 hours; below the age of 12, 4 hours, and below 7, 2 1-2 hours is the limit set down by our authorities for school children to be mentally employed during the 24 hours. I inquired into the time of

such employment in school and at home of all the classes in the various grades, and found their time of mental employment equal to that above stated. A so-called forcing or cramming system usually affects the weakly, the nervous and the naturally dull and stupid ones, and much harm is often done in failing to recognize these distinctions and demanding the same tasks from all alike.

Competitive examinations, exhibitions or any other intended display where all the energies of the pupils are called into requisition in order to render a favorable or commendable account of themselves is to be very seriously condemned, since the nervous system of many a one has by such means been irredeemably shattered, or their health otherwise irrecoverably undermined.

FREE TEXT-BOOKS AND THE COMMON DRINKING CUP.

Free text-books, though otherwise viewed as a great blessing to the indigent and the poor who can scarcely afford the expense of buying books for their children, which thus might be depriving them of the privilege of receiving an education, yet when looking the subject squarely in the face from a sanitary standpoint the system must be condemned as a dangerous innovation into our school system.

We were all school boys once, and have a distinct recollection how the smaller children in particular use and handle their books. You have seen them fall asleep at home and in the school room, resting one side of the face on their books and the saliva running down from the open mouths onto its pages, as well as wetting their fingers with saliva to turn over the leaves. Now, who will deny that saliva is not one of the most convenient mediums in transmitting contagious diseases from one to another?

It is on this principle that we hear so many objections to the indiscriminate habit of kissing as so dangerous in conveying diseases from one to the other, and it has been proved over and over again

that both syphilis and gonorrhea, with all their disgusting and disastrous consequences, have been in this manner communicated from one to another. The same thing precisely can, and I have no doubt oftentimes does, happen with any communicable disease through the exchange of free text-books from one to another. Although the interchanging of saliva from one to another is not quite as direct as in the act of kissing, yet the paper saturated with the saliva from one comes in contact with the mouth of a succeeding one, who again moistens it up with his own and the contact is very nearly a similar one, and certainly apparent enough to comprehend how easily one can pick up into his own system the germs of disease deposited by another.

No one will deny the poor the privileges of an education, and there is no necessity to do so, even without the free text-book system. There always was, and is now, a sufficient sentiment of charity in any community to indorse and submit readily to the buying of books by the School Board and presenting them to all such who are too poor to buy, and there being comparatively few parents who cannot spend a few dollars a year for books for their children.

The common drinking cup. There seems to be a great flurry recently over the common communion cup in the administration of the Holy Sacraments by the various religious denominations. We cannot deny the plausibility of some mischief resulting from this source in transmitting disease by so many different lips touching the same surface of the cup in succession. This exposure happens about four times a year. Now, what will you say when you transfer this lip contact with the same surface from many different individuals into the schoolroom. This subject has been hinted at by a few, but never as yet has it been publicly agitated.

Now it seems to me that while somebody is straining terribly at a gnat the camel is being swallowed whole, undressed at that, body, hair

and all. In church you have only four contacts during the year, and this by adult persons; in the school room you will probably have it from two to six times, four in a single day during the greater portion of the year, and this at an age when all the absorbent vessels over the whole surface of the lips and mouth are in the most active condition, and eager to suck in anything that comes in contact. How often have we seen in the schoolroom a child go up, take a tincup full of water and another one following take up the same cup and drink out of it without emptying it.

Children will get thirsty unusually often, if not in fact, at least in imagination. Every child should have its own drinking cup, and drink out of no other. A few cents will buy one, and it is just as easy to keep a little tin cup in their desk as a pen holder or a lead pencil.

THE GENERAL SURROUNDINGS AND CONDITION OF SCHOOL BUILDING.

The buildings themselves should be located always on an elevation, as remote as possible from all manufacturing establishments in order to save the children from the annoyance of smoke and the din and noise of the workingmen. Then there should be plenty of yard for playground and free from loose ground that does not become muddy, thus avoiding the carrying with their feet the mud into the schoolroom, where, after drying, it will create a large amount of dust. No large shade trees should be permitted to grow close to the building, because they constitute a serious obstruction to the entrance of light. Furthermore, the entire building should be kept scrupulously clean and thoroughly aired by throwing open all the windows as often as it is possible without interfering with the schools while in session. No paper should be allowed on the walls, the walls and ceilings should be white-washed or be simply plastered in some light color. By the way, we are informed that all wall paper contains a certain percentage of arsenic, and the more expensive the paper

the greater is the amount of this poison in it. The paper on the walls becomes moist from the breath of the children, and by this re-moistening and re-drying process particles of the coloring matter of the paper containing the poison are constantly given off, and become mixed with the dust of the room, and thus are breathed into the lungs by the children. And it has been said that instances have occurred where children took in this way sufficient arsenic into their system so as to have produced serious poisoning.

JANITORS.

A great responsibility rests with the janitors. They are the ones who are practically entrusted with the management of all sanitary conditions about the school. If they do not attend to proper heating and ventilation, and enforce cleanliness on the inside and outside of the building, nobody else will. To do this requires a certain kind of intelligence and acquaintance with sanitary laws, as well as a marked degree of bodily strength and executive ability.

Most of the janitors who are now employed are females, principally widows or poor women, whose only cards of recommendations, generally, for the position are appeals of poverty, destitute children to raise, or an invalid husband to support. Please draw your own conclusions as to the fitness of such persons to do the work committed in their charge properly and successfully.

I mean this in a general way. I do not wish to do an injustice to some of our female janitors, who deserve nothing but praise for the manner in which they perform their duties. In fact, a few of the cleanest and best-managed buildings that I met during my visits were in the care of such janitors.

Janitors in order to do their work effectively should at least to a certain extent be trained and educated the same as your trained nurses at the hospitals are trained and educated for their work. And, furthermore, all the janitors should be constantly under the guidance of a competent sanitary inspector.

I do not pretend nor do I intend to prescribe the duties of a school board as such, but in the light of school hygiene and sanitation I claim to have the right to remind them of duties that pertain to their office, which we as physicians and sanitarians are most directly interested and the proper advisors. The school board in a manner is the guardian of our children during their most dependent period of their lives. They construct and furnish the buildings, employ the teachers and procure the whole curriculum of school life. The minds as well as the bodies of the children are for the time being during a large proportion of their daily life committed into their care and keeping, and just in proportion as they pilot these children into the port of success and usefulness with their bodily vigor unimpaired, in that same proportion can they rest their conscience in the fulfilment of their voluntarily accepted obligations to the public.

It is just as incumbent on them to care for the health of their wards as to provide the best means possible for their mental development. Teachers are necessary, books, charts and blackboards are indispensable, the best methods of instruction that can be procured must be introduced. But, furthermore, these children have also the right to expect large and commodious buildings that are properly lighted, heated and ventilated, and furnished with desks and seats that fit the scholar and not such that require the scholar to be elongated, sawed off or twisted into all imaginable shapes in order to fit the desks and seats; to have the blackboards at the proper place; to have pure drinking water, to have ample space outside of the schoolroom to put their outside clothing untouched by those of any others' clothing, to have the rooms and building kept clean from dust and obnoxious odors, and in short, to have all the best sanitary conditions thrown around them that serve to promote their health, strength and normal physical development.

These school children become the

men and women who will shape the future destinies of our free institutions, and it is just as much of a national matter as a personal one, whether or not our boys and girls grow up to manhood and womanhood with their minds and bodies developed proportionally and harmoniously, in order to enable them to endure life's trials and bear life's burdens successfully.

You must see to it that you give them healthy and vigorous bodies. There is no use in attempting to put a big head on a feeble and sickly body. The thing will not work. While you expand the mind in childhood you must also favor the normal development of their physical constitution; otherwise all that is near and dear to us as a people and a nation will lose its chief motor of progress and a movement of retrogradation will step in.

Let me illustrate by a few examples as to some of the material that composes the school board. During the prosecution of my school work I received only four direct insults, three of which came from members of the board of school controllers and one from a newspaper reporter.

One member during a conversation or discussion of the subject while the school board was in session called me a fool and a crank. His constituents, appreciating his superior turn of mind, saw fit to promote him to a seat in the State Legislature; but, most unfortunately, the recent Republican landslide brought him home again.

The second member, the very Nestor of the board, instructed his ward, a boy under his charge, not to submit to the eye-test or the spinal curvature test, and to tell me that this business was all foolishness and a humbug.

Possibly the most charitable view to be taken of this case is to consider that this man's birth took place sometime during the antediluvian period, and that his habits were formed and his opinions were confirmed long before the development of sanitary science. It is some satisfaction to know that his constituents shortly afterwards gave him

the grand bounce and that he is no longer a school controller.

The third member instructed his children not to submit to my examinations, saying that if there was any measuring to be done he could do that at home with the strap. Now I was just thinking that if the eyes and backbones of those children should prove somewhat obdurate, and thus required a frequent application of the strap to keep them straight—that if the same means were to be employed to straighten out that man's brain what a material advance in the price of leather would necessarily ensue.

A newspaper reporter wrote me up in the Daily Eagle, commencing his article with the following flaming header in large letters: "Measuring Girls' Spines in the Reading Girls' High School." Now this was a downright falsehood. I was not doing anything of the kind. The whole article smelt strongly of the sensational and the ridiculous. They are a species of human beings who are at liberty to say and write pretty much what they please and the more graceful the affected party can grin and bear it without saying a word by way of resentment the better will be the outcome.

This, however, is the opinion of only a few individuals. It is a source of gratification to me to have received a number of written communications from intelligent persons, both from home and abroad, as well as from officers of some of the most scientific organizations in the country, congratulating me and complimenting me upon my good work for our public schools.

To bring about sanitary reform in our public schools requires a concerted action of the members of the medical profession.

Many school directors, teachers and parents need to be educated up to a certain standard, and you and I are the proper instructors. Every school controller and family have their physician, in whom they have confidence, and a word from us here and there, and a suspicion dropped here and there, that, likely, something was wrong in the sanitary condition

in the school which the children attend that was responsible for their sickness, the same thing with the teachers, all of which will develop a cumulative sentiment in favor of proper sanitation; and, whatever little effect one man's opinion may have, if the same thing is advocated by a great many a proper effect cannot so easily be averted, and it will stimulate everybody to thinking.

Let no political creed nor a stubborn Schiebner or anti-Schiebner faction interpose in working for a common interest and for the elevation of a common humanity.

ABSTRACT OF A CLINICAL LECTURE DELIVERED BY MR.

EDMON OWEN, OF LON-

DON, ENG., IN ST.

MARY'S HOSPITAL.

Spastic paralysis; talipes equinovarus.—The next case I have to show is a very interesting one. T. G., 11 years of age, came into the hospital in May, 1893. He was then 10 and a half years of age, and was the subject of spastic paraplegia—that is to say, the reflex action of his lower extremities was uncontrolled, because of some affection of the spinal cord. The cells of the anterior cornu of the gray crescent of the cord are in connection with two sets of filaments, motor and sensory. The gray crescent is, in fact, a small, independent brain, responsible to the supreme authority of the encephalon. If we cut off the connection between the gray matter and the encephalon there can evidently be no longer any direct control of the gray nerve-tissue; thus, for instance, on gently pinch-

* Abstracted by A. M. Phelps, M. D., Professor Orthopedic Surgery, Post-Graduate School and Hospital; Professor Orthopedic Surgery, University of Vermont; Professor of Orthopedic Surgery, University of City of New York, and Surgeon to the New York City Hospital.

ing the leg, we get spasmodic and uncontrolled contraction of the muscles of the limb. The reflex action is ordinarily controlled by inhibitory filaments, running from the brain to the gray matter of the cord through the antero-lateral column of the cord; and if anything happens to interfere with the integrity of these filaments the reflex acts lose inhibition and run riot. They had run riot in this boy. As he attempted to walk, contact between his foot and the ground caused spasmodic contraction of the muscles to take place, and he walked in the manner characteristic of spastic paraplegia, as I will demonstrate shortly in another case. He walked with stiffened legs, scraping his toes along the ground. In this boy the spastic paraplegia was not extremely well marked, but it was sufficiently obvious. There was spasmodic contraction of the calf muscles particularly, causing elevation of the heels, so that as he walked his toes were constantly catching on the ground. Moreover, the feet were constantly extended and inverted, in the position of talipes equino-varus.

The question was, what could be done for him? Through some early disease of the antero-lateral columns of the cord he had lost inhibition in his legs and feet centres, and it was altogether a most unpromising case for treatment. But we thought we would give the boy a chance by the open operation of Phelps, of New York, for talipes equino-varus. The result is that he now stands with his feet perfectly flat; there is neither inversion nor eversion, and, although there is still some clasp-knife action, he walks, so far as my part of the business is concerned, a perfect plantigrade. You will see the high stepping action as he goes along the floor, but fortunately, his central nervous affection has greatly improved.

The case had made a considerable impression upon me, because, from a surgical point of view, it was extremely unpromising. I can remember the time when a surgeon would have refused to operate upon a case of talipes equino-varus, or any other

form of talipes, which was secondary to central nervous disease, because the outlook was so poor. All such miserable cripples were, therefore, left without efficient treatment, and were allowed to drift on from bad to worse. I would not have operated on this boy had I not been particularly conversant with the operation of Phelps—a man who has done a great deal for orthopedic surgery, and who is, by the by, a general surgeon, not a special orthopedist. I think the time is coming when all bad cases of talipes equino-varus, except in very young children, will be operated upon by this open method. It seems to me at least to be inevitable. Here, truly, is a happy result of the thorough operation. All the credit of it is due to the large view and bold treatment of my American colleague, Dr. A. M. Phelps. I am not depreciating specialism altogether, but I have no hesitation in saying openly that I think specialism is going a little too far. May I here remark that probably the greatest advance that has been made in recent years in connection with the treatment of skin disease was made by a general, not a special physician—the treatment, namely, of inveterate cases of psoriasis by thyroid extract. If a man works within too narrow limits he is apt, I think, to lose sight of great principles, and take a contracted view of his surroundings. I do not say that he is, but certainly he is apt to be, like a man working in a valley. And in his work he is apt to develop a certain amount of professional myopia.

Phelps' Operation.—A word or two in regard to Phelps' operation:

The old-fashioned and orthodox treatment of club-foot consisted in the subcutaneous division of tendons and fascia, division of the tibialis posticus, the flexor digitorum, and, perhaps, the plantar fascia. Then, with a good deal of subsequent manipulation and tedious working with a mechanical Scarpa's shoe, the foot was got into more or less satisfactory position. Afterwards the tendon of Achilles was divided. This large tendon, you remember, was

divided last of all. It was left for the purpose of acting as a fixed point, so that from it the surgeon might be able to exert, with Scarpa's shoe, a certain amount of flexion and aversion. But if you happen to be dealing with a slight case of talipes equino-varus, it will very likely suffice, if you divide only the tendon of Achilles. When this is effected you may be able to correct version as well as extension of the foot. I would, therefore, strongly advise in every case division of that structure first. That is a great point, but not an original one, in Phelps' operation. It is characteristic of Phelps' operation that, instead of dividing the inverting structures subcutaneously, the open method is employed, so that the surgeon can see exactly what he is doing, and thus divide nothing that does not require division and everything that does.

(The last paragraph does not quite state all. The other reason, and by far most important, is that the skin cellular tissue and fibrous tissue on the inner side of the foot are short, and these tissues must be lengthened either by cutting, tearing or stretching, before the foot can be brought to a super-corrected position, and cutting is the least harmful and most rapid, hence the open cut.—Phelps.)

The incision is made, as I show you in this other child, from the dorsum of the foot across the inner side, just over the head of the astragalus, and is carried down to the sole. The internal saphenous vein is possibly divided, though it is often seen and avoided. The deep fascia has then to be cut, as it covers the abductor hallucis; then the tendon of the tibialis posticus, which supports the head of the astragalus, and the tendon of the flexor longus digitorum underlying the head of the astragalus. Going a little further, the surgeon opens a joint between the astragalus and scaphoid. Now comes what I consider to be the most important point in the whole operation, the anterior part of the internal lateral ligament is freely cut. You remember how this ligament is arranged. The anterior fibres are not connected

with the astragalus, but run over it to be attached to the scaphoid bone. The anterior part of the internal lateral ligament is peculiarly tight and resistant in talipes equino-varus, and, more than any other structure, requires attention. As soon as that is done the foot is everted and the joint between the astragalus and scaphoid opened up. The other resisting structures in the foot are then dealt. Amongst them will come, I dare say, the middle piece of the plantar fascia, which is the strongest part, and, very likely, the flexor brevis digitorum. Then the inferior calcaneo-scaphoid ligament has to be divided because it is holding the tuberosity of the scaphoid up against the sustentaculum tali. The position of the foot is to be improved by increasing the length of the inner border, and that can only be done by opening the joints between the astragalus and scaphoid, a measure which is impossible without division of the inferior calcaneo-scaphoid ligament. After every cut the surgeon wrenches the foot into a slightly improved position; he goes step by step, feeling his way, as it were, with the tip of his finger and the end of his scalpel. Perhaps before the foot can be got into the proper position the long and the short calcaneo-cuboid ligaments have to be divided. After that the surgeon gives another wrench and gets the foot into an over-corrected position. He dresses the wound lightly with some antiseptic gauze, loosely filling the large cavity, and then he secures the foot in lateral splints of house flannel and plaster of paris.

It may not be amiss to compare, for a moment in passing, this operation with other radical operations on the foot, which consisted in the removal of the wedge-shaped piece from the outer border of the foot. If the apex of the wedge is brought far enough inwards and the base is sufficiently wide, the foot can then be straightened out and brought flat. But this improvement is obtained at the expense of the length of the foot. Different varieties of these operative procedures bear the names of different surgeons—Davies, Col-

ley and Richard Davy—and there is yet another, and a very excellent one it is, which consists in the removal of the astragalus; it bears the name of a well-known provincial surgeon—Lund, of Manchester. These various procedures have emanated during the last few years from pioneers in orthopedic surgery, all of whom, by the by, were general surgeons.

All of these operations, useful as they have been in the evolution of the surgery of club-foot, effected their improvement by shortening the external border or sacrificing some part of the foot; but Phelps' operation improves the position of the foot, not by shortening or sacrificing anything, but by lengthening the internal border of the foot, and I am satisfied that it is of a very great importance.

The wound having been dressed in the case of this boy, operated on as described, on May 16, the foot was wrenched around into the over-corrected position and encased in lateral splints of house flannel and plaster of paris. Then for five weeks it was not interfered with. Only to-day the second dressing was taken off, two weeks having elapsed since the first was removed. When the dressing was removed the wound was almost healed, and, as you will see, it must have been an extensive one originally. Mr. Kellock, who, with me, operated on one of this boy's feet some time ago, suggested and carried out an ingenious modification in the detail: As soon as the foot is lengthened out there is a considerable amount of slack skin upon the dorsal and outer aspect of the foot; so, after the deep operation wound on the inner side of the foot had begun to granulate, Mr. Kellock raised a large flap of this redundant integument and slipped it into the wound. This graft has done well, and its growth has materially expedited the healing.

(No matter how wide the wound has gapped, in my experience it has always filled in perfectly within the six weeks, and within a short time

the redundant skin on the outside of the foot has been absorbed. With these observations in mind, I think I would hardly resort to a plastic operation in any case, although I would not condemn the practice.—Phelps.)

The old treatment of Scarpa's shoe required a great deal of attention on the part of the surgeon, who required in private practice to make almost daily visits to see how the case was going on, to assure himself that the foot was bearing the restraint, and to alter the screws. According to the new procedure the foot is put up in plaster of paris and so left for three or four weeks, the patient being allowed to walk about within a week of the operation.

(Mr. Owen is right in teaching that contraction following paralysis should be lengthened by operation. The senseless, prolonged, painful stretching treatment followed by some orthopedists is to be deplored. It will be abandoned in the near future. It is as unscientific to attempt by machines to stretch these contracted muscles and tendons as it is to follow the same plan of mechanical treatment with the remunerative tendon Achilles Dupuytren contraction and plantar-fascia, now so popular in the circles of certain mechanicians. These paralyzed muscles should be lengthened by interposing an abundance of new tissue, and not by stretching. The latter nearly always relapses, making it remunerative for the mechanic, while the cases operated upon do not, or at least very seldom, relapse, and the usefulness of the foot is very much superior to those treated by stretching.)

Nurse (to doctor, who has just been called in)—“It appears to be a very complicated case, doctor. Can you make anything out of it?” Doctor—“Well, between you and me, I think I can make a couple of hundred out of it.”—Puck.

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DAMAGES FOR DEATHS BY ACCIDENT.

The recent amendment to the Constitution of New York State, whereby the limit of \$5000, placed as recoverable damages in deaths due to accident from carelessness was revoked, seems to be a just action. We should, in determining the commercial value of human life, regard man as a working capital, capable of earning a certain per cent. of interest. No two men can represent the same amount of capital, for the capabilities of one are greater than those of another. The claim for damages should, then, be founded on a basis of replacing the lost capital; and a sufficient sum awarded, which, when safely invested at a fair rate of interest, will bring the yearly returns equal to the actual earning power of the person killed.

This does not imply that the rich man, who meets death by accident, shall necessarily receive more than the poor man, who earns his daily

bread by the sweat of his brow, for a money capitalization must not be taken into account, in either case, in computing the earning powers of a man. Neither does this nullify any claim for damages on account of the death of a wife or daughter by accident, for the earning powers of such are on par with those of man, or nearly so. Corporations such as railroads should bear these facts in mind when settling damages with those injured or killed as a result of careless accident. Probably less suits would result if a due consideration of the money loss were given by responsible parties. No amount of money can replace a human life, and consideration should mark the desires of both parties.

CHANGE OF BASE IN THE GERM THEORY.

We learn through our foreign exchanges that the German school, or, what may be designated as the materialistic in medicine, has finally put the brake on pathological investigation and is now turning its attention more seriously to the side of treatment of disease. Thus we learn, that after all the concession has been made, in the veriest stronghold of modern pathology the end and object of the healing art includes something more than investigation in the autopsy room, or the laboratory; and that the truth must be confessed that science, though vastly illuminating the arena of morbid processes, has not yet, in a single instance, definitely demonstrated the *modus operandi* of a single remedy; on the contrary, the greatest discord and confusion prevail among scientists on the properties or virtues of therapeutic measures.

One will direct hot applications; another, nothing but cold water, or even the ice-sack; one will purge in peritonitis, while another will lock up the bowels and ply opium.

Acting on the theory that excesses of the thermal rise constituted the great danger of inflammatory disturbances, the products of modern chemistry, the antipyretics, were

seized on in the mad rush; but their popularity was indeed only ephemeral.

They certainly would lower the temperature; but so eminent authorities as Jacobi and the late Loomis, quite recently condemned them all as dangerous, and terrible cardiac depressors. Without question their lethality was something awful to anticipate. But how about the laboratory products of experiments—antiseptics and so-called central remedies?

Well! antiseptics are as dead as Caesar's wife. This wonderfully seductive germ theory is being slowly but surely undermined by our latest investigators; the ubiquitous microbes, like the poor, we are now told, are always with us and in us, and all quite harmless, except for what is supposed to be their toxic products or secretions.

Antiseptics, so-called, have been proven to be quite inert on living tissues, unless, when employed of such strength or to simultaneously devitalize living protoplasm; produce a superficial, tissue-necrosis, or severe irritation. They have gone, and here we have asepsis, another name for cleanliness.

The latest offspring of scientific therapeutics we have in antitoxine, a remedy evidently based on the homoeopathic principle; the blood of the animal, supersaturated with the most virulent cultures of the diphtheritic exudate, being defibrinated, strained and injected into the infected child.

It might be well, however, before we give the stamp of approval to a remedy to have a clear idea of the disease.

There certainly are good grounds for disputing the claim that Löffler's germ is an essential etiological factor in diphtheria, as we understand it chemically, for in some of the most virulent and mortal cases it cannot be found, while on the contrary in many of the mildest forms of pharyngitis multitudes of the bacilli abound. Hausemann, of Berlin, denies that it is the true germ of diphtheria.

Koch gave the world the bacillus

of tuberculosis, but what direct influence has this discovery had on this terrible disease? Preventive, we say; by isolation, etc.

Its contagiousness must first be demonstrated, which is by no means yet definitely determined. Tuberculosis is on the decrease, thanks to improved sanitation, better clothing, better and more food; besides, in obedience to the fluctuating course of all destructive maladies. But while this is on the decline, cancer is enormously increasing.

Experimental research has vastly aided in explaining many obscure questions in the science of medicine; but to expect of it to displace the necessity of patient and exact clinical observations at the bedside, or wholly eradicate empiricism in medicine, it is scarcely necessary to venture to assert, is more than we may hope to realize.

ART IN ADVERTISING.

We note in some of our exchanges a tendency to display, among their advertising pages, half-toned plates of an art company. As works of art we have no comment to make upon them, but, unfortunately, the secret of their introduction is evidently intended to call into activity a morbid, passionate desire to gaze on pictures that would be called in baser language "smutty" were they not shielded by the term "art."

The proof of this lies in the line of pictures inserted. Art and artists may well be confined to the narrower limits of their own trade journals if the sensational is to be courted. We even doubt if these pictures draw attention to other advertisements. Most medical men would throw away the journal producing them in disgust. Had the pictures any medical bearing we could excuse their nudity, but it is not the evident intention, in placing them among advertising pages, to assert any medical worth. We regret that among the medical journals using these illustrations are some of our most esteemed contemporaries, and we trust that

the next batch of cuts sent out by the art company will be of a more decent assortment. A pretty picture adds to the attractiveness of the advertising pages of any trade journal, but this does not necessarily mean that every such picture must contain the forms of nude women to become attractive.

Surgery.

DR. T. H. MANLEY, New York.
COLLABORATOR.

SURGERY OF THE STOMACH.

By M. Rosenheim.

For cancerous tumors of the stomach surgery offers us two procedures. Resection, when the pylorus is involved, and gastro-enterostomy or a junction of the wall of the stomach with the intestine. As to the respective gravity of these operations Guinard gives a mortality of 62 per cent. in 153 resections. Le Boef, 58 per cent. in 108 resections. While Kocher had but two deaths in seven resections.

For gastro-enterostomy Guinard found reported 105 cases with 33 deaths. Rockwitz had but a mortality of 12.50 per cent., and the results of Hahn are better yet. Resection, then, is always a more grave operation than gastro-enterostomy. The contra-indications are, first, great extent of the neoplasm; second, adhesions between the stomach, pancreas or liver; third, injection of the omentum; fourth, cancerous infection of the lymphatic-ganglia. As to the results of these operations there can be no doubt but resection leaves more functional power, as the motor action of the stomach is but slightly impaired, while in gastro-enterostomy, it is quite suspended. In cicatricial contraction, resection should be the operation of choice, without malignant complications, while in extensive cancer gastro-enterostomy is the safest and most satisfactory as a palliative measure.

As for the treatment of round ulcer of the stomach we must take three factors into consideration: First, hemorrhage; second, peritonitis,

and third, by perforation. Operations for hemorrhage, thus far, give us but little hope to expect much from them. Operations for peritonitis following perforation give a mortality, in 15 cases, 14 deaths. —Societe Des Medecins De Berlin, Oct. 19, '94; Gazette-Hebd., Dec. 5, '94.

CEREBRAL COMPLICATIONS OF SUPPURATIVE OTITIS.

Mr. Pique, in opening the discussion, highly praised the work on this subject, lately, from the hands of M. Mignot, of Val-de-Grace.

A man of 24 years, suffering from an old otitis media, was suddenly seized with aphasia. At the same time, violent headache began and severe post-auricular pain was felt. Somnolence, ptosis, with facial paralysis, set in; the pulse became small and the temperature abnormal.

M. Michon made a vertical incision over the mastoid cells, opened them, and, not finding pus, advanced up over the pavilion and encroached on the tempora fossa, when the dura mater was opened and about 450 grammes of green, foul-smelling matter were evacuated.

The symptoms rapidly disappeared; but two unpleasant accidents succeeded and retarded convalescence. On the second day after the operation erysipelas developed and run a severe course, and later an encephalocele made its appearance. This latter, Mignot cut away, with a ligature and closed in the break, by an osteoplastic graft.

This illustrates many of the most prominent features observed in those cases of post-otorrheic origin, and touches on many points in the complicated problem of treatment. Attention will be requested only in connection with diagnosis and treatment.

1st. Some of these troubles are psycho-motor, and often are easy of diagnosis. 2d. There are others, not psycho-motor; therefore, these difficult questions arise: Are they caused by a phlebitis? Are they a meningoencephalitis? Are they dependent

on a cerebral abscess? Are they always dependent on infection? Of the latter, no doubt, can longer exist. Nevertheless, signs and symptoms are frequently very uncertain and vague.

I entirely agree with Bergmann that practically no doubt can remain when we have the following ensemble of signs, viz.: Sudden pyrexia, violent headaches, persistent hemi-crania, a slowing of the pulse, with comatose symptoms.

Now, what shall be the direction of treatment?

1st. Have we cerebral mischief with otitis and without mastoiditis?

This is important to determine, for if this condition is present we will find pus, far forward, as stated by Hessler, lodged between the dura mater and the cranial plate, a suppurative pachymeningitis.

In order to reach the precise origin of this we will employ "Wheeler's line" for a guide, i. e., pass a line down perpendicularly through the mastoid process, and in the quadrant directly anterior and above the concha, we will pass down, on the seat of disease.

2d. Do the cerebral symptoms arise from otitis with mastoid infiltration?

If so, should we simultaneously open the mastoid and tap the skull? Our course will take the right direction here, if we begin by first drilling the mastoid apophysis and attempting to drain the skull, through this devious course; but, should symptoms of a serious character supervene, then we should proceed and trephine through Wheeler's quadrant.

3d. What must be done when there is mastoiditis with localized cerebral infection?

Here we might say, that we should at once, resort to the trephine, but yet it is the safer course to penetrate the mastoid widely and endeavor to pass up forward, with the lateral sinus for our guide; where we may often reach the pus foyer, from behind, avoid a mutilation and the possibility of a cerebral hernia, after

recovery. If this fails, then, as an extreme measure we must not hesitate to make a breach in the skull wall and clear away the offending matter.

Societe De Chirurgie Seance du 19 Dec.
—Pres. M. Lucas-Championniere.

ABSCESS OF THE BRAIN.

Von Beck (Bietrage zur Klin. Chir. Bd. xiii) has lately published an important work on abscess and tumors of the brain, from their etiological, clinical and therapeutical standpoints.

1st. Abscess or tumors of intracranial origin must be diagnosed or distinguished by their origin, whether traumatic or following suppuration from the ear; and in undefined, obscure abscess, with regard to duration, whether acute, sub-acute or chronic; cortical or deep.

In his statistics he reports 76 cases with 40 cures; but the prognosis is not always favorable. In ten cases of this class five were operated on without cure in any instance. In one, death followed relapse. In another, there was such an extensive destruction of brain substance that relief was quite out of the question.

The author realizes that here diagnosis is often attended with great difficulties. He inquires, How shall we decide when to operate? In traumatic cases, he says, the way is comparatively clear.

When the suppurative mass is lodged in the mastoid apophysis it is easily reached and promptly evacuated with skilled hands, without any special danger. He attaches much importance to the use of iodoform gauze packing, both for its antiseptic and drainage qualities. By prophylaxis, proper care of the discharging ear, etc., he maintains that this serious sequel may be avoided.

2d. In 38 cases of tumor of the brain Von Beck obtained 14 cures, complete; four other cases at time of writing were safely convalescing. He had one case of sarcoma of the right parietal lobe, operated on three times, on each occasion with marked amelioration of the symptoms. His patient's life had been prolonged.

two years. In one case of glioma death followed after four days. The mass had connection with the right ventricle.

In another case of Jacksonian epilepsy the fits ceased after operation.

It is therefore evident that operations for neoplasms of the brain cortex gives about the same results as those for abscess. Unhappily, there are cases in which surgical interference must be interdicted, as in those tumors of metastatic origin, or when their seat and volume are indefinite. Of course, it goes without saying, that those at the base, are quite beyond relief. He insists, with good reason, on the most rigorous examination of every case before any operation is undertaken.

(Gazette Medicale Paris, 15 Dec., '94.)

ENCEPHALIC ABSCESS OF OTORRHEAL ORIGIN.

By M. Gerard-Marchant.

The author dwelt especially on the morbid anatomy of encephalic abscess. He took the ground, that those purulent formations in the brain were seldom indeed of auricular origin. Broca had in 90 cases of cerebral abscess found but one which was in any manner connected with the ear. In 30 cases which he had seen himself, there was but one connected with otorrhea. He inquired, how long since osteomyelitis and tubercular disease of the bones of the skull ceased to play a dominant role in these cases?

Cerebral abscess had been found, in association with hepatic suppurative, coryza, ezeza and affections of the maxillary sinus. M. Picque's pessimism was not well founded, as he denied any place to the classics in the question of diagnosis. He should not forget that they distinctly set down two separate series of disturbances, which the author has employed almost entire: 1. Abscess of the psycho-motor zone, and (2) abscess of the latent zone. In the first, there were localized motor troubles; in the second, fever, pain and chills.

With respect to treatment, he did not deny that an early trephining of the mastoid, with free depletion of the peripheral vessels, would often

be enough to arrest deep-seated inflammatory changes, though, while admitting this, it should not be construed that he regarded any immediate connection existing along the course of infection in the cerebral centres.

Soc de Chirurgie, 26, Dec., '94.
(Gazette Hebdomadaire, Jan. 2, '95.)

ON A LOW TEMPERATURE DURING ANESTHESIA.

M. Angelosco has recently communicated the result of his researches on this subject, the resume of which is as follows:

1. The temperature is always lower during anesthesia, being the most marked during the first fifteen or thirty minutes. During the first quarter of an hour the fall varies from .007 to .1; in the second, from .01 to .005.

This low temperature always lasts through profound anesthesia.

On awaking, the temperature immediately takes an upward course.

It sinks from similar causes, as chloroform and ether—i. e., from radiation over exposed parts; repose and immobility, defective oxidation and imperfect assimilation of oxygen. Why is the reduction of heat greater under ether? M. Angelosco believes that ether exercises a vaso-dilatation, and thus a loss of much heat ensues, while chloroform produces vaso-constriction; therefore in the first the visage is congested and in the latter very pale.

(Societe de Biologie Seance du 8 Dec., '94.—Gazette Med. Paris.)

Therapeutics.

DR. LOUIS LEWIS, Philadelphia.
COLLABORATOR.

REFERRED SYMPTOMS.

Oftentimes symptoms indicating local trouble are observed, when the tissues or organs ostensibly affected are in a normal organic condition; the true origo mali being at a more or less distant point. In other words, manifestations of disease may extend to parts not actually affected. These symptoms or manifestations are mostly sympathetic, and show

the reciprocity of sensations between different parts of the body.

Congestion of the kidneys may occasion an apoplectic seizure, though the brain be free from pressure or disease; and the attack is relieved on removal of the cause. In like manner, a congestion of the brain is sometimes removed by the re-establishment of a belated menstrual flow; and toothache, sore throat, and thrush may be due to irregular periods. Eclampsia and coma depart, as by magic, on the expulsion of an intestinal worm; infantile convulsions, on the reduction of a hernia, the removal of urinary retention, the release of an incarcerated tooth; and strabismus, cramp of the extremities, tetanic spasms, and chorea, as soon as disturbances of the primæ viæ are subdued. Gastric irritation may cause auditory vertigo, independently of aural disease; cancer of the tongue induces earache; gout and lithæmia bring tinnitus aurium; and syphilis sets up temporary deafness in the sound ear. Severe dyspnoea attends diabetes, while the air-passages are intact. Distressing hic-cough may be due to intestinal obstruction. An alarming night cough is commonly associated with indigestion, in children with perfect lungs; a woman with sound breathing tubes may have an ominous cough, entirely attributable to the uterus; hardened wax in the ear may arouse a cough that suggests phthisis. Organic brain disease may also beget a misleading cough. Pleurisy is often responsible for severe pain in the groin. Hepatic and pancreatic disease give rise to pain in the shoulders. Uterine displacements are frequently signalized by numbness of a lower limb, or pain at the vertex of the head; pain at the occiput attends albuminuria and diabetes; and clavus may accompany chlorosis. Along with metritis there may be a pricking pain in the eyes, though they are quite healthy; and irritability of the bladder, though the urine is normal. Bright's Disease may cause temporary blindness, without any change in the retina. Nervous exhaustion gives pain in the healthy spine; while

in diseased spine, pain is frequently referred to the chest wall. Inflammation of the ovary creates pain in the leg of the same side; disease of the hip or of the lumbar vertebrae affects the inner side of the knee. Pain appears between the shoulders in cancer of the breast; in the back, in abdominal aneurism; at the nape of the neck, in diseases of the heart; at the pit of the stomach, in disease of the dorsal vertebrae. In diabetes, vulval irritation in women, and irritation of the insatus urinarius in men, are common accompaniments. And tape-worm will originate symptoms resembling hysteria, pregnancy and typhoid fever. All these referred sensations in uninjured tissues subside whenever the remote cause can be rectified. Even a pseudo hydrocephalus has appeared, while the brain and meninges were healthy; and has melted and vanished on the abstraction of an offending tooth.—Louis Lewis, M. D.

A NEW DISEASE.

Returning after an absence of several months, Charley surprised his best girl the other night with a partially grown beard. But she surprised him still more when she cried out with alarm: "Oh, Charles, do you often break out on the face like that?"

Medicine.

DR. E. W. BING, Chester, Pa.

COLLABORATOR.

GENERAL EMPHYSEMA AS A RESULT OF CATHETERISM OF THE EUSTACHIAN TUBE.

The operation was done on a child about 10 years old. In a few moments emphysema appeared, and rapidly invaded the face and upper part of the chest. The face was so tumefied that the child's eyelids were closed; consciousness was preserved, breathing good, pulse at first small

and rapid; crepitation of the tissues and general resonance. The emphysema gradually subsided, but took a week before it was all gone.—*Rev. Internat. de Rhinologie*, etc.

THE CIRCULATION OF THE LYMPH IN THE SMALL LYMPHATIC TRUNKS.

Ranvier has succeeded in injecting Prussian blue into the capillary network and small lymphatics in the ear of a living rabbit. The injection gave no pain nor any disturbance of the blood circulation; the course of the injection could be plainly seen. The color in the lymphatic trunks became paler and disappeared in two or three minutes, while the network of the lymphatic capillaries was still blue. This is due to the activity of the lymph circulation and not to decoloration in situ. Further the coloring matter was found in the ganglion at the base of the ear.—*Prog. Med.*

ACTION OF HIGH PRESSURES ON SOME BACTERIA.

Roger has studied this action on microbes by compression of the liquids in which they are growing. Pressure varied from 1000 to 3000 kilos to the square centimetre. At pressure of 1000 K. the staphylococcus aureus and the B. coli were unaffected, the staphylococcus preserving its chromogenic power; at 3000 kilos the S. was attacked both in its growth and virulence; the B. anthrax after undergoing a pressure of 3000 has its virulence slightly diminished. The asperogenic variety of this germ on the contrary strongly attacked cultures which had been put under 3000 K., only causing death in 18 or 19 days.

MUCO-MEMBRANOUS ENTERITIS.

This is a very frequent affection, but its pathology has not been cleared up satisfactorily and the treatment is on that account undecided.

Clinically the mild and the severe types exist; in the former the patients pass from time to time the characteristic muco-membranes. As

the general health is fair and they experience no pain the patients do not notice them, or, if they do, pay no attention to them, or else consider them to be sections of tape worm.

It is easy to differentiate between the latter and muco-membranes since this form of enteritis is always connected with constipation.

In severe forms, happily less frequent than the preceding, there are also acute and chronic forms. If the diagnosis of the chronic variety is easy it is not so in the acute variety, which is often misunderstood to the great detriment of the patient.

Sometimes the disorder begins with violent colic, tenesmus and expulsion of blood and membranes; sometimes fever rising to 40 deg. C. (104 deg. F.), abdominal pain, gastric embarrassment, furred tongue, etc., which makes one think of typhoid fever so much the more, since if appropriate treatment is not employed this condition may last for several weeks.

How is the diagnosis to be made?

In the dysenteric variety it suffices to demonstrate the absence of the habitual fetor of dysentery—and on the other hand, the presence in a stool of dysenteric appearance of scybala, which indicate that the dysentery is evidence of an enteritis secondary to obstinate constipation. As to the typhoid form its analogy to that fever is only apparent. The tongue is not dry and fissured, the stupor is wanting, the temperature curve is wanting in regularity, the eruption is absent and spleen normal. The abdominal signs differ from those of typhoid. If meteorism be present, pain is not felt solely in the iliac region, but along the course of the transverse colon, which is resonant; again there is either constipation or flatulent passages which do not have the yellow color of typhoid stools, but contain in a liquid passage of offensive odor fragments of muco-membranes or scybala either alone or mixed.

The history shows that there have often been other similar attacks, that there has been constipation of a more or less pronounced character.

The diagnosis of the chronic form

is easy when we read the fact that disordered nutrition is what confers the serious character to this ailment, inasmuch as it is much easier to ameliorate the condition than to cure it.

TREATMENT.

Do we find in the etiological conditions sufficient indications for the formulation of a rational treatment?

Constipation is a prominent factor in all varieties of the complaint; sometimes it is in a manner latent, i. e., the patients have regular stools, but do not completely evacuate the intestines; sometimes an almost continual diarrhea is present, enteritis complicating the constipation—in other cases obstinate constipation, with the passage of shreds of membrane, occurs.

The name muco-membranous enteritis is unfortunate and the treatment suited to enteritis is ineffectual in the disorder under discussion. If these patients are carefully examined, we can generally find indications of a "neuro-arthritic" taint, being descendants of neurotic, neuro-asthenic or gouty parents.

It is important not to lose sight of these peculiarities since the treatment requires the toning up of the nervous system. Sometimes hemorrhoids, uterine displacements, movable organs, gastric disorders as the hyperchloridric condition, flatulency, are the exciting causes. These gastric disorders are sometimes primary and at others secondary. It might be thought that these would occasion the intestinal irritation, but it is not probable. It is most likely that if dyspepsia and the muco-membranous condition often are coincident, they are due to the same general cause, nervous influence. It is not likely that microbes are the cause but simply concomitants in those instances where they have been detected. Enteritis—that is, inflammation of the bowel—is not present, the membranes are made up entirely of concrete mucus and contain neither films nor leucocytes. The explanation is as follows: The intestine becomes atonic in a progressively increasing manner.

The stagnant fecal matter produces irritation; they erode the mucous membrane, and microbes finding a suitable soil multiply and finish the destructive process by provoking ulceration, which may progress to a fatal extent. Enteritis may then coexist, but is altogether secondary. If the patients may present local infectious phenomena (dysenteric), they can also present the characters of a typhoid attack as described above, due to the absorption of poison generated by the fecal matters.

The requisite is both local and general treatment, which will be noticed further on.

The following rules for treatment can be formulated:

All persons suffering from muco-membranous enteritis are subject to constipation, and this latter is not always due to essential atony of the intestines. Constipation must be combated and the evacuation of the membranes facilitated, and pain eased during the passage of the membranes. Purgatives (drastics) are not to be used; hygienic and other means to improve the general condition are to be employed and the diet must be regulated.

The best means of overcoming the constipation consist in the use of mild laxatives, such as flaxseed, olive oil, licorice, compound licorice powder, etc. Hydrastis is useful in combination with senna. Mercurials with belladonna are often effective, but the main reliance is to be placed on injections of olive oil in amounts of 12 to 16 ozs., continued daily till the stools become bilious. Warm water in large quantity for flushing the bowel in some cases acts better than oil. The injection is to be made slowly. If hemorrhoids are present the anus should be dilated, any other displacements should be rectified.

For the pain opiates are not advisable since they intensify the constipation. The bromides are preferable, especially the salt of calcium. Antiseptics are not much use, and their presence irritates the bowel. Benzo naphthol, naphthol and salicylate of soda have been used.

Rest in bed, milk diet, hot applica-

tions to the belly succeed best in the dysenteric form. In the febrile form it is well to start with a moderate dose of castor oil; as soon as the bowel is cleaned out the fever falls. Antithermics are useless here. Treatment of the general condition comprises bathing, massage, electricity, living in the country.

If secretion of acid is excessive, nitrogenous diet, meat, eggs, milk, etc., should be used; if dilatation of stomach and flatulency are present, non-fermentable food should be given. Vegetables should be used sparingly.

These means will often improve the condition but the prospect of permanent cure is very small.—Rev. de Therap. Med. Chic.

Ophthalmology.

DR. J. A. TENNEY, Boston, Mass.
COLLABORATOR.

SPECTACLES OR EYEGLASSES.

According to the Philadelphia Polyclinic, Dr. Hansell recently drew comparisons between spectacles and eyeglasses, to the disadvantage of the former. He takes the ground, in the first place, that eyeglasses are more becoming to the faces of most people. The conspicuous appearance of the screws to spectacles, and the hooked temples, materially change the patient's facial expression.

Dr. Hansell admits that spectacles are better adapted to people whose occupations compel them to stoop over their work; to those whose occupations are arduous, and to those who are subjected to severe weather; and are essential to those who have noses formed so as not to be able to retain eyeglasses.

He complains that spectacles indent the nose, cut the ears, are awkward to use, get bent when they are put in the case, and require frequent adjustment by a skilled optician. He regards the eyeglasses as less conspicuous, more convenient, as good in supporting complicated lenses as spectacle frames, and less liable to be bent out of position.

Some of these objections to spectacle frames are scarcely valid. Frames with twisted temples do not cut the nose or the ears. They are not liable to get out of shape, because of the great elasticity of the temples. Wire temples are always getting distorted, as are eyeglass frames; but this is not a great objection, for opticians always stand ready to keep the goods they sell in order. The only valid objection to spectacles is their looks. When patients have long, slim faces, this must be considered.

OCULAR INJURY FOLLOWED BY TETANUS.

Camille Fromaget, in the Archives d'Ophthalmologie for November, 1894, gives the details of a rare case of tetanus following an injury to the eye. A young man of 19 years was struck in the left eye by a rocket, that was sent off 30 metres distant. There was intense pain, bleeding and complete loss of sight. The eye was washed with cold water, and two leeches were applied to the temple. In five minutes the hemorrhage ceased from the eye and nostril.

Four days after the accident the eye began to suppurate. The patient had up to this time taken milk only, but was now allowed solid food, when it was observed that his jaws acted with difficulty. In six days more the masseters were contracted and hard; the mouth could only be opened one cm.; the sterno-mastoids were rigid, and the good eye was fixed. He could not turn it in any direction. The pupil would not react under the light, but the accommodation of the eye was retained. The patient had no pain, and the temperature was normal.

At this time the patient was admitted to the hospital and the stump of the injured eye removed under chloroform. It contained a small amount of pus. There was a large wound through the cornea and sclerotic, and the eye was in places firmly adherent to Tenon's capsule. Chloral and bromides were administered by the rectum.

The next day there was slight opis-

thotonos, with rigidity of the abdominal muscles. There was some photophobia and myosis. Two days later there was delirium with general convulsive movements, set up by the slightest noise or touch, or by a bright light. The hypnotics were pushed, but three days later the patient died convulsed, but conscious to the last. The temperature had risen to 99.8. The autopsy revealed nothing except congestion of the meninges.

EYE STRAIN AND GASTRIC DISORDERS.

Charles G. Stockton, in the Medical News, calls attention to certain cases in which with functional gastric disorders there exists a definite and uniform ocular defect. This defect is astigmatism of a high degree, varying from one to five dioptries, and usually irregular; that is, myopic in one eye and hypermetropic in the other.

He holds the opinion, that when dyspepsia is characterized by absence of acid in the gastric juice, without the presence of a malignant tumor, we are dealing with a disease that commenced as a functional disturbance. Inhibition of the peptic glands is followed by atrophy, and then the disease becomes permanent. He considers that dilatation of the stomach begins in functional disturbance, and ulcer of the stomach is of neuropathic origin.

He comes to the following conclusions:

1. Functional gastric disorders generally arise from some influence outside of the stomach.

2. These causes are usually to be found in some reflex irritation or some toxemia.

3. Amongst the latter syphilis occasionally has a place that apparently has passed unnoticed.

4. Structural changes in the stomach are not so much the causes as they are the result of functional disorders.

5. The successful treatment of these affections must include the removal of the often unsuspected exciting cause.

Miscellany.

ELECTRICAL EXECUTION.

In the case of the negro murderer, David Hampton, who was executed by electricity at Sing Sing prison on January 28, the autopsy showed considerable ruptures of the cerebral arteries as a result of the current. Any attempt at resuscitation in this instance at least would therefore have proved fruitless.

TO BLOW OR WASH?

In these days of warfare against dirt why don't we wash our noses? Surely they get quite as dirty as our teeth, which we brush so laboriously every day. The civilized nose is, in fact, one of the dirtiest organs of the body; for, so long as civilization, which mostly means crowding, involves the breathing of dirty air, the nose, which is the organ by which the air receives its first preliminary purification, must become loaded with all sorts of nastiness. The man with a cold, who is always sneezing and slobbering with his handkerchief, is not a pleasant companion; but, for all that, by dint of much "running" his nose at least is washed, and is cleaner within than that of the fine lady who has trained herself never to use the highly-decorated little bit of lace which she carries about and calls a handkerchief; for in that nose condense and accumulate the soot, the dust and microbes of our far from cleanly cities. People who suffer from nose diseases have of course to apply various lotions, the efficacious part of many of which is the water they contain, and this they commonly do either by placing the fluid in the palm of the hand and snuffing it up—a process which only draws it through the more open lower passages of the nose; or by means of a nasal douche or syringe, a process somewhat more effectual but also more irksome. The simple plan is to plunge the face into a basin of clean water, cold or tepid, and take slight snuffs, in and out,

while under water. By practice it will be found that before the face has to be withdrawn for breath water can be drawn in and out of the nose several times, filling and emptying the nasal cavities every time, without using any force and without drawing the water into the throat or causing any choking. The state of the water after the performance indicates the necessity for this little operation.—British Medical Journal.

STEAM AS A HEMOSTATIC.

Professor W. F. Snegirew, of Moscow, reports the successful use of steam for hemostatic purposes in several cases where other means have been unsuccessful or inconvenient. His attention was first called to the possibility of using steam as a general hemostatic, as the result of a severe hemorrhage occurring during an operation on the liver. On reading the literature of hepatic hemorrhage he was impressed, he says, by the general helplessness of the surgeon in such cases. "Even the actual cautery was not always sufficient, and in most cases required the additional aid of a closely placed tamponade of gauze."

For some time Professor Snegirew had been in the habit of using steam as a cauterizing and hemostatic agent in the treatment of uterine disease, in the following manner: After dilating the uterine canal an application of steam was made through a small metal tube inclosed in a catheter. After a half or at most a full minute of this application a dark fluid, with a strong brothy odor, returns through the catheter. In his experience there has been no pain attending this application and many cases of tender, painful, bleeding conditions of the uterine mucosa have been entirely relieved.

Carrying out the suggestion from this use of steam he conducted a series of experiments with Dr. Blagowolin, to determine the hemostatic value of steam upon the liver and other organs. Their results in animals were as follows:

(1) They were enabled to remove without loss of blood such sized pieces of the liver as they chose, the animal surviving.

(2) Similar results were obtained on the spleen.

(3) They removed entire lobes of the lungs without hemorrhage.

(4) Considerable sized pieces of kidney were successfully removed.

(5) From the brain, excision of pieces up to a limited size.

(6) Bleeding from the spongy portions of bones was stopped.

(7) The marrow was scalded, but the restoration of the bones went on as usual.

(8) The femoral artery of a dog, cut through either across its course or lengthwise, did not bleed under the application of steam.

(9) The wounds after the use of steam healed by primary intention in animals, and also in men upon whom it was used.

As the result of these experiments steam was used as a hemostatic during the past summer in the Alexiner Semstwo Hospital with success in the following operations:

(1) In five cases of resection of the knee-joint, without elastic bands, ligatures or artery forceps.

(2) In the extirpation of a cancerous breast, under the same conditions as above; also in the removal of fatty and malignant new growths in the skin.

(3) In amputation of the cervix uteri and in fibromyotomy.

(4) In resection of bone and in removing sequestra.

(5) In abscesses, to render them odorless and induce rapid healing.

(6) In fistulae and sinuses, especially when tubercular.

There seems little doubt in the minds of the investigators that in steam they have found a hemostatic of ready usefulness, aseptic, not interfering with primary union, and above all applicable to parenchymatous organs, such as the liver. Certainly further reports will be eagerly awaited.—Boston Med. and Surg. Journal, Feb. 7, 1895.

ANTITOXIN NOT NEW.

There is nothing new under the sun. Inoculation with antitoxin, it appears according to a learned and ingenious correspondent of a Munich medical journal, is by no means new, nor even modern, having been employed by no less a person than Mithridates, King of Pontus. The authority for this statement is the Roman naturalist Pliny, who relates that this monarch, for reasons known to himself, was afraid of being poisoned and therefore made himself proof against all such attempts by gradually accustoming himself to all known poisons, producing the state known from him as mithridatism. He was accustomed to make use of an antidote called mithridaticum, whose principal ingredient was the blood of the Pontic duck, this creature having been chosen because it had the reputation of living on poison. Here, therefore, we have the case of the blood of an immune animal being used to make another animal immune.—N. Y. Daily World.

DR. LOOMIS WAS A MILLIONAIRE.

The will of the late Dr. Alfred L. Loomis was filed for probate yesterday. The value of the real estate is placed at \$400,000 and of the personal property at \$600,000. The testator gives his wife \$150,000, his house at No. 19 West Thirty-fourth street, and his horses, carriages and bric-a-brac in lieu of dower. The income of \$25,000 is given to the Loomis Laboratory, and whatever part of the income is not used is to be paid to the professor of pathology of the University of New York. The New York Academy of Medicine gets \$10,000, the bequest to be known as the Loomis Entertainment Fund, and the interest to be used in providing entertainment for the fellows of the academy.

The testator gives \$5000 to Margaret A. Rollo, \$100,000 in trust and his medical library to his son, Harry Patterson Loomis, and \$100,000 in trust to his daughter, Adeline Eliza

Loomis Prince. The residue goes absolutely to the son and daughter in equal shares. By a codicil dated February 16, 1893, the widow receives the property in Ringwood, N. J., bought by the testator from Abram S. Hewitt.—World.

LIKE PATENT MEDICINES.

A thistle craze that would have done Scotland's heart good broke out in a town not far distant a short time ago. An inventive genius who had tried a little of everything began buying them up. No one knew why, but there were no objections to selling, O, no! What became of them? Well, in a few weeks the town was flooded with circulars advertising a new remedy for kidney troubles and all sorts of ailments. Following the introduction of the brownish medicine, it was discovered that the thistles had all been boiled on the range in the kitchen of the home of the inventor and had been regularly bottled and labeled as a backache cure, but there was not a solitary ingredient beside thistles in the water.

A FIN-DE-SIECLE HOSPITAL FOR THE TUBERCULOSIS.

A novel kind of hospital has been opened at Ormesson, close to Villiers, on the river Marne. One portion of the building is devoted exclusively to the treating of tuberculous children, and is separated by the whole length of the garden from the main structure. On the ground floor are the consulting and operation rooms, inhalation and bath rooms, and a bacteriological laboratory. The wards are supplied with ozone from leather bags. Sun and air baths are taken on a terrace furnished with comfortable couches for the purpose. Kerosene, turpentine, eucalyptus and similar bactericides are mixed with the atmospheric air of certain portions of the building. There are no published results yet available, but the experiment, though by no means so sensational as some of those to which we have been recently accustomed, is of a decidedly interesting character.—N. Y. Med. Record.

The Times and Register.

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WHOLE No. 860.



Original.

THE INDICATIONS AND NATURE OF TREATMENT IN SEVERE ABDOMINAL INJURIES AND INTRA-ABDOMINAL HEMORRHAGES UNACCOMPANIED BY EXTERNAL EVIDENCE OF VIOLENCE.

BY JOHN B. DEEVER.
PHILADELPHIA.

Read before the Philadelphia Academy of Surgery, January 7, 1895.

Contrary to our custom, which has been for the orator on this occasion to present an address upon the advances made in surgery during the preceding year, I would beg the privilege of our Honorable President and Fellows to substitute therefor a paper upon a subject that must appeal to every practical surgeon, namely, "The Indications and Nature of Treatment in Severe Abdominal Injuries and Intra-abdominal Hemorrhage Unaccompanied by External Evidence of Violence."

Every surgeon has undoubtedly at some time in his experience, either in private or hospital practice, met with cases coming under the class covered by the title of this paper. These are cases in which the history and general condition of the patient give the impression that there is a serious lesion within the abdomen, and yet, upon examination, we find total absence or only slight evidences of injury. The tendency, I fear with many, is to treat these patients tentatively, only to be awakened at the autopsy to the fact that a rupture or a tear existed in the abdominal cavity, which, by early radical operation, could have been relieved.

The mortality in these cases is appalling; references to the literature of the subject will amply bear out this statement, which is readily ac-

counted for by the nature of the injuries. Where the lesion is of the liver or spleen, if the patient does not die of shock or hemorrhage, a violent peritonitis supervenes, to which he shortly succumbs. If the liver, spleen or kidneys are involved, death from hemorrhage may ensue in a very short time. Should the stomach, intestine, or bladder be ruptured and their contents poured into the peritoneal cavity, death from peritonitis is the result. In rupture of the mesentery the danger is from hemorrhage, yet when the opening in the mesentery is small a clot may form sufficiently large to control the bleeding. Should death occur under these circumstances it would be the result of peritonitis caused by the free blood in the peritoneal cavity. I report a case of this character, where recovery followed immediate operation. In ruptured extra-uterine pregnancy death is due either to hemorrhage or peritonitis.

The usual history of these cases, with the exception of extra-uterine pregnancy, is that the patient has received a direct injury to the abdomen, which is found to be unaccompanied by external evidence. These injuries may result from railroad accidents, from being caught between shifting cars, or from blows upon the abdomen received in various ways.

This class of injuries is quite common in military surgery, more so in the past, when spherical balls were used and only a low velocity attained. A majority were supposed to be caused by the violence of the wind displaced by the passing ball, but we know now that they were due to the impact of the balls almost entirely spent.

Two cases which illustrate this occurred at the siege of Sebastopol. In

neither did the clothing or the abdominal walls show any signs of injury, but both the liver and spleen were comminuted to a pulp, and the intestines extensively lacerated (Mr. Hulke, *Lancet*, December 31, 1892).

As yet we have no reports from surgeons of the armies engaged in the present strife between Japan and China, but it will be of great interest to read the records of such cases. We can expect, I think, a very full and detailed account from the Japanese surgeons. We have all applauded the work of some brilliant individuals of the Japanese profession, and, in fact, we must assign to Japan in medicine the same standing that she has taken in other walks of civilized life, and which she has demonstrated she can hold.

The most prominent symptom is pain, which is accompanied by shock, the degree of which is dependent upon the extent of injury and the temperament of the individual.

I might say here that temperament and nationality have a strong bearing in the production of shock. Persons of a highly nervous temperament suffer more from shock than do phlegmatic individuals. For example, Americans are far more liable to suffer a severe degree of shock following injuries or operations than are the Germans.

The pain is peculiar and difficult to describe, but is readily recognized by one who has seen many of these cases and by the patient himself. It is not that of ordinary intra-abdominal affections, but is described by the patient as if something had given way or ruptured, and is usually accompanied by a consciousness of impending death. It is usually accompanied with tenderness, which will be more or less localized, unless the ensuing peritonitis be general. In the early stages of the injury, when shock is most profound, it may not be so pronounced, and if large doses of opium be administered it may be masked throughout the course of the trouble.

When vomiting is present it is usually associated with pain. Rarely does the vomited matter contain blood.

There is often seen a characteristic rigidity of the abdominal walls, which is due to intra-abdominal irritation. I have seen this so marked as to recall to mind the check-board appearance of the normal abdominal walls as represented in the pictures of the early artists.

In the cases I have observed, consciousness has invariably been retained for varying periods of time. Restlessness is not usual in the early stages except in severe hemorrhage, but later on, when peritonitis develops, it is not an uncommon symptom.

The pulse and temperature vary according to the degree of shock. The former is weak and running, varying from 100 to 160, and the temperature subnormal. If reaction takes place the pulse becomes stronger and less frequent, and the temperature reaches the normal line. After reaction peritonitis is invariably the rule, and is accompanied by an accelerated and a high-tension pulse. The temperature under these circumstances is unreliable, as it does not correspond to the degree of inflammation or septic infection. A high temperature with a slow pulse is less significant than a rapid pulse with a low temperature. In cases of septic peritonitis, where autopsy revealed a belly cavity full of foul pus, I have seen the temperature run a normal course throughout the disease.

The part the sympathetic system of nerves, which has its largest distribution in the abdominal cavity, may play in injury to the abdomen is important considering the differential diagnosis between the simple contusion and contusion accompanied by visceral lesion. In the former the absence of the severe and characteristic pain, of constant and persistent vomiting, of the anxious expression and presentment of impending death, and of any evidence of loss of blood, associated with the occasional presence of suddenly developed meteorism, will usually be sufficient to establish the differential diagnosis. This condition of meteorism is due to paralysis of the muscular coat of the bowel consequent upon the concussion of the plexuses.

There are cases, however, where it is very difficult to say definitely whether there be a visceral complication or not. Under these circumstances one can only wait for a comparatively few hours, when, if improvement is not apparent, the operative course is to be pursued. When the solid viscera are the seat of injury hemorrhage will be the main source of anxiety. The pain and the exsanguination give the clew. If the patient should react, which is unusual, unless the kidney is the injured organ, we will find, in addition dullness on percussion in the flank. Rectal or vaginal examination may afford aid in determining the presence of a collection of blood in the pelvis. The solid organs suffer most from external violence on account of their fixity, density and close proximity to the bony structures. The liver is the most often injured, then the uterus, spleen and kidney, in the order named. The stomach is least often injured, there being very few such cases on record. Dr. J. W. Goff (Medical and Surgical Reporter, 1892), reports a case of ruptured stomach following a horse kick of the abdomen, verified by an autopsy. The shock was profound, and there was vomiting with absence of blood. The author states that he believes immediate operation would have saved the patient's life.

In the Glasgow Medical Journal for 1894, vol. xli, Andrews reports a case of rupture of the stomach without external evidence of violence, in which all the symptoms of a serious visceral lesion were present with the exception of vomiting. The rupture was upon the anterior wall; was about an inch long, and involved all the layers. I cite this case as one of special interest on account of the location of the tear and the absence of vomiting.

The liver is the organ most often affected because of its position beneath the ribs and against the spine, and because it is held firmly in place by strong ligaments and bloodvessels. It is most commonly ruptured on its upper surface, generally in the right lobe, and in a majority of such cases the injury proves fatal.

Dr. H. P. Loomis (Medical Record, January, 1893), reports a case where the patient was struck by a pole protruding from the back of a wagon, which, when the wagon turned the corner, struck him on the right side, leaving no external evidence of violence. There was a three-inch tear in the right lobe of the liver and a pint of blood in the abdominal cavity. The patient died in the street from hemorrhage before medical aid could reach him.

Mr. Battle (London Lancet, 1894), reports a case of rupture of the bile duct, in a boy six years of age, who was run over by a hansom cab, in which there was but a slight shock without much pain or tenderness. Vomiting began early and persisted. On the fifth day slight jaundice developed. He was operated upon on the eighth day, and the abdominal cavity was found filled with bile. He died on the morning of the ninth day.

Autopsy. Liver and gall-bladder were intact, but about one-half an inch beyond the junction of the cystic and hepatic ducts the common duct was found to be torn completely through. No other injury was found.

J. E., aged forty-six years, was admitted to the German Hospital on November 17, 1893, suffering from injuries received by being struck by a locomotive. He had a compound fracture of the lower jaw, lacerated scalp wound and fracture of four ribs on the left side, with no other signs of injury. He died six hours later. Post-mortem examination revealed a hemothorax of the left side. The peritoneum was not perforated or otherwise injured, but the peritoneal cavity was filled with blood. The spleen was completely comminuted, and the left kidney had been forced from its bed and was floating in the retro-peritoneal space. There was an extensive hemorrhage between the layers of the mesentery and a hemorrhagic extravasation of the posterior wall of the stomach.

H. M. C., colored, aged 16 years, was admitted to the German Hospital on the evening of December 3, 1894, with the following history:

While playing about some moving freight cars he was accidentally caught between the bumpers, sustaining an injury to his abdomen. Examination upon admission failed to disclose any evidences of external injury. The introduction of the catheter drew clear urine. There was a moderate degree of shock, and the patient complained of severe pain in the abdomen and tenderness on palpation. Further investigation proved negative.

The resident surgeon, Dr. Page, not deeming the case of sufficient severity to send for me, treated the patient for shock. When I examined him upon the following day it was very evident from the severity of the abdominal pain and tenderness associated with very decided rigidity of the abdominal walls, that he was suffering from a serious intra-peritoneal lesion. I decided to open the abdomen at once. As soon as the peritoneal cavity was opened a large quantity of dark liquid blood escaped. The small intestines were delivered, when the cause of the lesion was found to be a ruptured mesenteric vein, the bleeding from which was arrested by the presence of a large diffused blood clot occupying the interval between the layers of the mesentery. To make sure that there was no other lesion, the large intestines, the stomach, the liver and the spleen were carefully examined, but with a negative result. The abdominal cavity was washed out with warm saline solution, glass drainage was introduced into the pelvis and the wound closed. Recovery was uninterrupted.

L. C., male, Italian, aged thirty-five years, was admitted to the German Hospital, with a history of a fall of about fifty feet, striking upon his abdomen. He was profoundly shocked and exsanguinated. The only external evidences of injury were some slight cuts on the hands and head. A diagnosis of internal hemorrhage was made and the abdominal cavity opened up. Dark liquid blood escaped as soon as the peritoneum was opened, and the source found to be the mesenteric

vessels. The mesentery was torn half way across and the intestines lacerated in four places. The mesentery was united with a series of catgut ligatures. The rents in the intestines closed with the Lembert sutures. The abdominal cavity was washed out with hot saline solution and closed. He died two hours after the operation. The autopsy demonstrated several tears in the gut which had been overlooked, and several grapeskins and pieces of fig in the peritoneal cavity.

The most common form of intra-abdominal hemorrhage is that resulting from ruptured extra-uterine pregnancy. While these cases may be due to traumatism without any external evidence they are usually spontaneous. While hemorrhage from the pelvic organs of the female usually occur from a ruptured extra-uterine pregnancy, it may be due to other non-traumatic causes. Hematosalpinx may occur independent of pregnancy, and rupture either spontaneously or from traumatism. Again, degenerated bloodvessel walls, and especially veins, may rupture under similar circumstances.

To be continued.

THE KEEPING QUALITIES OF THE VARIOUS BRANDS OF PEROXIDE OF HY- DROGEN.

BY H. ENDEMANN, PH. D. CHEMIST.

(Formerly Associate Chemist to the New York City Board of Health.)

In compliance with my determination to arrive at some conclusion as to the keeping qualities of the brands of medicinal peroxide of hydrogen, on which I reported December last in the "Times and Register," I now send you the outcome of these tests, which were made with the same samples after the lapse of approximately three months.

All the samples have been kept in the dark at a temperature ranging between 63 and 52 degrees F. They were all standing up in the same case side by side.

The first column of the following table contains the tests obtained in November, 1894; in the second, those

obtained on the 18th of February, 1895.

Brands of H2O2
Solutions.

	Available Oxygen as determined November, 1894, in samples then purchased.	Available Oxygen as determined in samples purchased and tested November, '94, when retested, February '95.
No. 1, John Bene's Medicinal	10.50	9.72
No. 2, Hydrozone	27.35	25.90
No. 3, Larkin & Scheffer's Medicinal	9.65	9.23
No. 4, Mallinckrodt's Medicinal	9.55	9.00
No. 5, Marchand's Medicinal	16.55	14.90
No. 6, McKesson & Robins' Medicinal	10.95	10.60
No. 7, Merck & Co.'s Medicinal	0.50	0.40
No. 8, Oakland Chemical Co.'s Medicinal	10.50	9.80
No. 9, Peuchot's Medicinal	10.60	10.25
No. 10, Powers & Weightman's Medicinal	8.40	6.00
No. 11, Pyrozone 3 per cent. Medicinal	11.20	11.02
No. 12, Rosengarten & Son's Medicinal	5.10	0.28
No. 13, Smith, Kline & French Co.'s Medicinal	6.15	3.65
No. 14, E. R. Squibb's Medicinal	12.40	9.85

By referring to the above table it is easily understood that with the exception of brands No. 7, No. 10, No. 12, No. 13 and No. 14, the keeping properties of the other samples are quite satisfactory, but the only brand which practically answers to the standard is the No. 5.

It is remarkable to see that brand No. 2, "Hydrozone," which was twice as strong as brand No. 5 in November, and about three times as strong as brands Nos. 1, 3, 4, 5, 8, 9 and 11, has lost but little of its active oxygen, so that its high degree of strength, as well as its keeping properties, can be relied upon.

My opinion concerning peroxide of hydrogen for medicinal purpose is, that strong solutions will soon be exclusively in use, providing their

keeping properties are satisfactory, and I consider that even a 15-volume solution is not always powerful enough. Should this strength be sufficient in the majority of cases the 27 or 30 volumes can easily be reduced to 15 volumes, so that the strong solution will answer all requirements.

25 William street, New York City.

ACETANILID AS AN ANTISEPTIC; WITH OBSERVATIONS
UPON ITS USE IN ONE
THOUSAND SURGICAL CASES.

During the past six months I have been employing acetanilid locally in a large number of surgical affections, with results so surprising in some respects as to make it difficult to restrain enthusiasm in commenting upon the antiseptic properties of the drug.

Having noticed mention of the remarkable powers of acetanilid in preventing pus-formation in the articles of Drs. Harrell and Bodamer, I began cautiously to employ the substance, and have since been extending its trial in many directions, until now, my cases having numbered over one thousand, I think myself justified in making some preliminary observations that others may be persuaded to try the drug, so that, by multiplying observers and cases, we may more early come to know the exact value and limitations of the drug as an antiseptic.

The action of acetanilid upon wounds, especially granulations, when used in full strength, is to produce intense dryness, blueness and to check at once and prevent the formation of pus. Upon extensive granulating surfaces and chronic ulcers a slight burning sensation is at first perceived, which is rapidly succeeded by sedative or anesthetic effect. If used in sufficient quantity a thin scab of acetanilid, combined with the wound secretion, forms, under which healing rapidly progresses. If a very large surface is exposed to the action of the undiluted drug, toxic symptoms promptly surpervene in susceptible individuals.—Dr. T. S. K. Morton in Philadelphia Polyclinic.

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ARGON.

THE NEWLY DISCOVERED ATMOSPHERIC CONSTITUENT.

Of all the discoveries which have been made in recent years this will doubtless prove the most valuable to scientific men. The fact once proved that a new element enters into the composition of the air we breathe, the field opens wide for investigation as to its relation to disease. The London Lancet for February 9 speaks editorially concerning the new discovery in the following manner:

"There is no longer the least doubt that Lord Rayleigh, Sec. R. S., and Professor Ramsay, F. R. S., have made a most important discovery, and the most remarkable thing connected with it is that the new element (or it may be elements) has been separated, not from any rare earths or other comparatively unknown source, but from our own familiar friend, the air we breathe, "Argon" has thus escaped the notice of investigators for nearly a century,

and its probable existence was only lately surmised by a physicist when he observed that the density of nitrogen expelled from chemical compounds was about 1.2 per cent. lighter than atmospheric nitrogen; its actual separation and identification seem, however, to have been reserved until both chemist and physicist attacked the problem.

"The former was Lord Rayleigh and the latter Professor William Ramsay, and the result of their joint labor is a happy instance of the success which attends the co-operation of those who, though engaged in different but adjoining fields of scientific research, yet labor in concert to unfold the secrets of nature. It is not possible to enter into the masterly and extremely interesting argumentative details of the paper contributed by Lord Rayleigh and Professor Ramsay, the reading of which by the latter riveted the silent but expectant attention of the Fellows of the Royal Society and their friends in the theatre of the London University. Suffice it to say that the history of the progressive stages of the investigation was not the least fascinating portion of the paper, as were also the clear and lucid arguments and experimental evidence adduced, which left the distinguished audience in little doubt as to whether the element or constituent separated was really new or old.

"We may, therefore, pass at once to a brief account of the history, preparation and properties of the new element. By way of preface, however, it is impossible to forget the classic work in the last century of Cavendish on the composition of the air, which must appeal once more to the wonder and admiration of present-day chemists and physicists, his power of discernment being, in the light of this recent discovery, more clearly evident than ever before, since in his remarkable paper published in the Philosophical Transactions in 1788 he expresses doubt as to whether the nitrogen of the air (phlogisticated air) was in kind elementary, and he even adduced distinct experimental evidence—based on the oxidation of nitrogen by means

of the electric spark and subsequent absorption of nitric fumes—of another constituent in the atmosphere. Thus he wrote, 'If there is any part of phlogisticated air of our atmosphere which differs from the rest and cannot be reduced to nitrous acid we may safely conclude that it is not more than 1-120th part of the whole.' This residue was, no doubt, Lord Rayleigh's and Professor Ramsay's argon, which occurs probably to the extent of between 1-125th and 1-20th part of the whole atmosphere.

"It was by repeating the Cavendish experiment, with the facility of appliances which the improvements of a hundred years have afforded, and by adding successive quantities of the air out of which the nitrogen was eliminated in the manner indicated, that Lord Rayleigh and Professor Ramsay showed that the residue could not be nitrogen, but another body, which they have called 'argon.' Under similar treatment chemically obtained nitrogen yielded no such residue, except such as could be accounted for by accident or other cause. Argon is best obtained, however, by first freeing the air, from which carbonic acid and water have been removed, from oxygen by means of red-hot copper and then absorbing the nitrogen by means of metallic magnesium, which, when heated to redness, combines with the nitrogen, forming an orange-colored mass of magnesium nitride. The residue gas after this series of operations—the passage of the gases being repeated again and again—is argon. In this process, again, chemically derived nitrogen yields no such residue. The density of pure argon is 20; hence its molecular weight in accordance with Avogadro's law must be 40. There are reasons for believing that, like mercury, its molecule contains but one atom; its atomic weight, 40, is therefore identical with its molecular weight.

"Argon is soluable to the extent of 4 volumes per 100 volumes of water, so that it is about two and a half times as soluble as nitrogen, and possesses approximately the same degree of solubility as oxygen, and is accordingly found to occur in in-

creased proportion to nitrogen in rain water.

"According to Dr. Olszewski, a well-known authority on the constants of liquefied gases at low temperatures, argon easily condenses to a colorless liquid at a temperature of 128.6 degrees C. and under a pressure of 38 atmospheres. At a lower temperature argon freezes to a crystalline mass like ice; at a still lower temperature it becomes white and opaque. Its freezing point is 189.6 degrees, its boiling point 187 degrees, and its density as liquid is 1.5 degrees.

"As far as spectroscopic work can decide Professor Crookes concludes that Lord Rayleigh and Professor Ramsay have added one, if not two, members to the family of elementary bodies. It appears that argon yields two distinct spectra, and this would indicate it to be in reality a mixture of two gases, which have as yet not been separated."

"On the other hand, Dr. Olszewski has shown that argon has a definite melting point, a definite boiling point and a definite critical temperature; and these, as is well known, afford excellent criteria of a pure substance, while there is no certainty that the exhibition of several spectra is necessarily characteristic of a mixture. Still further light, however, is needed upon this all-important point, and the discoverers hope to decide the question in the experimental work which they promise shortly to undertake. If argon be a single element, then there is reason to doubt whether the periodic classification of the elements is complete—whether, in fact, elements may not exist which cannot be fitted among those of which it is composed. On the other hand, if argon be a mixture of two elements they might find place in the eighth group in Mendeleef's classification, one after chlorine and one after bromine. If it be supposed that argon belongs to the eighth group, then its properties would fit fairly well with the requirements of the periodic law. For the series which contains silicon, phosphorus, sulphur and chlorine might be expected to end with an

element of mon-atomic molecules of no valency—i. e., incapable of forming a compound, or, if forming one, being an octad; and it would form a possible transition to potassium with its monovalence on the other hand. 'Such conceptions are, however, of a speculative nature, yet they may perhaps be excused if they in any way lead to experiments which tend to throw more light on the anomalies of this curious element.' Lastly, the extreme indifference or inertness of argon to combine with other elements, in spite of its solubility in water, is remarkable. All attempts to combine argon with the bodies which commonly exhibit a vigorous affinity for certain elements have proved utterly abortive. Fluorine, which lays siege to almost every known body, has, however, not been tried. In this connection it should be borne in mind that it is nitrogen's very inertness which makes it so powerful an agent in modern high explosives; it strongly resents partnership or a tied existence, as does apparently argon, and longs to exchange the solid condition for the gaseous. We are face to face, then, with a mass of remarkable evidence, brought forward with singular skill and clearness by the discoverers, in favor of the existence of a new constituent of the atmosphere. It has stood unflinchingly the minute and exacting investigations of Dr. Olszewski and Professor Crookes.

"We may ask, what is the significance of this newly discovered constituent of the atmosphere? Does, for instance, its presence affect the phenomenon of respiration or of the assimilation of food material by plants? Would not its solubility in water, which is greater than nitrogen and equal to oxygen, lead to its transmission through the moist membrane of the lung, and, if so, what part does it play in the physiological processes in man upon which his very existence depends? Does its alternating presence in the air possibly account for the bracing influence of sea and mountain air, and are the benefits of balneo-therapeutics to be ascribed to argon? Again, is it nitrogen or, after all, argon that is disen-

gaged from certain warm mineral waters, as those of Buxton? All these and other questions of probable importance will at once occur to our readers when they learn the existence and the properties of the new atmospheric constituent. Who can tell, therefore, that the discovery of argon may not open a new vista even to the student and practitioner of medicine? It is certain that now the existence and position of argon have been indicated, as with a new planet or comet, a host of observers will turn their instruments upon it and many deductions on these and other points are sure to be forthcoming."

THE DISPOSAL OF HOUSEHOLD GARBAGE IN CITIES.

In these times of congregation and concentration of a nation's population in large cities and towns, the question of the economical and safe disposal of the residue of food and the excrementitious substances of the human body has become an important and serious one for our economists and sanitarians to deal with.

Paris, with her stupendous sewerage system, is now in trouble over its non-success, as the gross volume of sewerage has become so great that the Seine has been transformed into a vast sewer-drain, carying with its currents, through France, on its way to the ocean, the most intolerable of germ-laden stench, which, in summer are diffused through the atmosphere for miles on either side of the river's banks.

It seems little short of a positive criminal waste to turn this valuable fertilizer into the sea, while its natural repository is the soil; but, for the present, there seems no other means of getting rid of it.

As to household garbage, until of late years scavengers collected and sold it to farmers at a profit. This now, however, can be no longer done, as it has no sale.

In New York swill is collected by the city, carried out to sea in scows and dumped into the water, convenient to the Long Island coast.

This has proven exceedingly expensive, unsatisfactory, inasmuch as in severe winter weather the floats cannot go to sea in safety, and besides, in many important particulars, is a menace to the public health, and cannot under any circumstances be regarded other than a temporary make-shift.

Dr. Douglas H. Stewart, the well-known sanitarian, has lately made an exhaustive study of the whole subject, visiting Europe and examining into the various systems in use in the larger continental cities, and testing the merits of the various devices there used to destroy swill. In his lecture on the subject of the "Disposal of Household Garbage in New York," lately delivered before the section of Public Health, in the Academy of Medicine, he declared that the only solution of the question lay in cremation. He proved by an elaborate set of statistics, gathered from widely-scattered sources, that household garbage could be reduced to ashes in modern garbage crematories without producing offensive odors, and that in the process of its combustion, in each crematory, from fifty to one hundred horse-power could be generated, which might be utilized to run dynamos or for other purposes.

It certainly seems little less than criminal waste to deliberately destroy a mass of material of such a highly nutritive value as clean, fresh swill; but we must deal with conditions and not speculation in this iconoclastic age, and, if swill cannot be sold, the next question arises: What will we do with it, that will not menace the public health and entail the least expense? Indeed, under these circumstances there can be but one answer to this question, viz., we must cremate it.

Engineering skill and mechanical ingenuity have now provided us with such simple, inexpensive and efficient crematories that we will only need a sufficient number of them to quickly and without odor reduce every description of animal and vegetable debris by incineration to an ashy residue which will equal only about

three per cent. of the original bulk of garbage.

Dr. Stewart's suggestion to so manipulate the draught that in the process of incineration the heat which is imparted may be used to generate steam to move machinery is in the line of domestic economy, and must commend itself as practical and valuable. We are pleased to learn that in the great city of New York a member of our profession has taken the subject in hand and has commenced an important reform on scientific lines, the consummation of which will place the population of the metropolis under a lasting obligation to him.

We can conceive of almost nothing blocking the way of substantial reform in this direction on the subject of hygiene, except political jobbery, for which the profession must be on the alert and promptly expose it if it should become too flagrant. We congratulate Dr. Stewart for the able manner in which he has finally pointed the way to an important sanitary reform, and trust that the reform city government of New York will promptly put his recommendation into effect.

Book Reviews.

THE PHYSICIANS' VADE MECUM. Being a hand-book of medical and surgical reference, with other useful information and tables. By S. J. Wimmer, M. D., and F. S. Parsons, M. D. Published by the Medical Publishing Company, Philadelphia. Price, \$1.

This book, the publication of which has been much delayed by additions made thereto, above those originally intended, is now completed. It contains 483 pages, and makes a volume about twice as large as was planned when the price was fixed at \$1. This makes the work all the more valuable.

The book has been prepared with the utmost care at considerable ex-

pense. It presents very useful information for physicians, students and druggists. A glance at the table of contents at once suggests the completeness of its arrangement. Tables are given of abbreviations, doses solubility of chemicals and elementary substances, etc.

The tables of the apothecary and metric systems and their approximate equivalents are most complete. Synonyms of disease, tables of the eruptive fevers, incompatibles, pulse, formulas and doses for hypodermic medication and for inhalation of medicines.

The book also gives a chapter on feigned diseases, medical examination of children, examination of urine, rules for calculating doses, etc.

A synopsis is given of all diseases, their definition, symptoms and treatment in classified order. Children's diseases is the subject of chapters 11, 12 and 13, by Dr. Parsons. The first deals with the care of the infant immediately after birth. The second treats of infant feeding. The third gives a brief resume of the most important diseases of infancy liable to occur prior to the third year, except the contagious diseases, which are the subject of other pages.

One of the most valuable chapters in the work is the 14th. It treats of a subject, which, we believe, has never yet been undertaken in medical literature. It is called "The Physician's Interpreter," and consists of a complete set of questions to which the patient is to answer only "yes" or "no." These questions are arranged in three different languages—English, French and German, in rotation, and it is intended to assist the doctor in his rounds of cases among foreign patients who do not know the English language. It will be an invaluable help to city physicians who have dispensary work, or who have occasion to be among French or German population.

The last chapter is devoted to prescriptions, of which there are over 1000 in the book.

A work like this is worth, at least, \$3 or \$4, and the fact that the publishers have placed it at the small price of \$1 should appeal to every

physician in the land. The size is such that it will slip into the pocket, being printed on an excellent quality of thin paper. It is well indexed and makes an extremely neat little volume.

A TEXT-BOOK OF ANATOMY. Descriptive and Topographical, with 625 Illustrations. By Carl Heitzmann: English Edition by Louis Heitzmann, M. D. Price, \$7. Medical Publishing Company, Agents, No. 718 Betz Building, Philadelphia, Pa.

This work is the English translation of the text-book on anatomy which is used throughout Germany in most of the universities.

It is about the size of Gray's Anatomy, but printed on much superior paper.

The illustrations are the most perfect we have ever seen. The points of precision are of photographic fineness and unequalled in any English work.

More strictly speaking this might be classed as an anatomical atlas. The illustrations of visceral anatomy are most complete.

To the physician who does much surgery the work is invaluable.

The price of the work was formerly \$7, but will now be mailed for \$3 and postage (35 cents). A limited supply only is on hand.

A PRACTICAL THEORY AND TREATMENT OF PULMONARY TUBERCULOSIS, by Frank S. Parsons, M. D., editor of the Philadelphia "Medical Times and Register." Published by the Medical Publishing Company, 718 Betz Building, Philadelphia, Pa. Price, 25 cents. Paper cover.

This monograph covers 77 pages of a neat little volume. It treats of a subject of universal interest to all scientifically inclined persons.

The author views tuberculosis in a new light, and from a more rational standpoint than any that has recently been advanced. This work, it is safe to say, marks a new era in the study of this disease.

The first pages are devoted to an interesting introductory, illustrative of the present condition of medical thought upon the subject. The causation of tuberculosis is then taken up, and it is ably shown that the dominant theory regarding the tubercle bacillus as a causative agent is not based on the true pathological condition in the early stages of phthisis.

In the pages devoted to a consideration of symptomatology it is suggested that, in view of the universal dislike of fats by phthisical persons, there doubtless exists a disordered condition of the pancreas, which condition of the pancreas, which condition may be congenital or acquired.

Dr. Parsons has based the treatment of consumption on the lines of this new theory, calling attention to the advantages to be gained by elimination, nutrition and oxygenation. The low price of the book places it in reach of everyone, and no physician should be without it.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

A PLUNGE INTO ELECTRO-THERAPEUTICS.

PROGRESS IS MADE.

We left Dr. Holmes on the verge of making the acquaintance of a meter. As his experience enlarged he had added to his electrical information gradually, and his latest discovery referred to the necessity of some device to comply with the new custom of measuring the galvanic dose. Before the firm to whom he had written could respond he sent them an order for a standard instrument (price per catalogue \$40), but almost immediately afterwards he encountered these remarks in an article by Paul F. Munde: "I look upon the galvanometer in practical electro-therapeutics merely as a means of determining the strength of the battery at the moment when the connection with the galvanometer is made, but by no means do I believe the galvanometer absolutely necessary to indi-

cate the exact number of milliamperes which it is essential for us to administer in a given case, or which the patient can endure. The real therapeutical limit of the current is, after all, a decided sensation of pain complained of by the patient. When this point is reached the current of electricity is strong enough, no matter what the milliampere-meter may indicate." Dr. Holmes hastily countermanded his order! He was perfectly willing to buy everything that was necessary to complete his outfit and make it in every way worthy of the office of an electro-specialist, but \$40 luxuries were quite another thing.

The following letter evidently crossed his communication in the mail, and is self-explanatory.

Dear Doctor:

In reply to your esteemed favor we beg to say that cells and milliamperes are not convertible terms at all times. Your 16 cells would produce an amperage according to the resistance, but will not make the vibrator on the faradic side of your battery hum. There is no vibrator to the galvanic side of your combined batteries, and we advise you to read over the directions carefully when using same. In the technique of galvanotherapy we regard a milliampere-meter as a *sine qua non*. Its use has lifted galvanism out of empiricism and placed it securely upon a scientific basis. You are correct in attaching to it the very highest importance, as in the opinion of the best authorities no electrician of good standing can afford to be without one. Thanking you for your valued order, which we forward by express, and assuring you of the superior workmanship of all our goods, we remain,

Very truly yours,
The Blank & Blank Mfg. Co.,
Dealers in Electro-Medical Apparatus.

As this made the meter appear to be inevitable, Dr. Holmes resigned himself and prepared to meet the C. O. D. demand for \$40. When he reflected that it would preserve him from all future "empiricism" his satisfaction somewhat increased, for as

an exponent of scientific medicine his objection to empirical proceedings was deep-rooted. He also perceived that it would at once place him indisputably in the ranks of electricians in good professional standing. The meter soon arrived.

The cords and sponge electrodes were got out for a little private exhibition of the meter to his family, when the Doctor began to experience sudden qualms of uncertainty about where to put it and what to do with it. He read all the text-books and directions he had so far received without finding any light on the subject. It seemed to him that nearly all books on electricity were written to conceal information.

However, his wits led him to consult the makers, and at the end of a week he had it connected in series properly, with the aid of an extra piece of copper wire. His delight knew no bounds. Over and over again he watched the needle jump as he touched the well-moistened sponge electrodes together, and as this amused his tireless little boy he soon had the battery run down to half its original E. M. F.

As we have seen, Doctor Holmes was both studious and thorough, and it naturally seemed to him that if he expected to rise in the ranks of electrical specialists he must, of course, ground himself thoroughly in the basic principles of electro-diagnosis. All the books spoke at length of electro-diagnosis, and he concluded that it lay at the foundation of all skill in the use of electricity and was something he would need constantly in his office work.

He got at it in this way. He got out his physiology and attacked the chapter on Degeneration and Regeneration of Nerves. He took "Pflügers' law of contraction" and mastered:

- C. C. C.
- A. C. C.
- A. O. C.
- C. O. C.

from end to end and from before backwards. He read up intrapolar and extrapolar electrotonus, negative variation, weak, moderate and strong currents, and he pasted in the cover

of the battery box the following memoranda:

"Anode—Copper positive pole—action sedative. Cathode—Zinc negative pole—action exciting. 1. Weak—No anodal contraction caused. 2. Medium—Anodal contraction when current ceases. 3. Strong—Destroy conduction during current."

He also noted that R. D. means the "reaction of degeneration," and was ready to meet the enemy and diagnose him *secundum artem*.

Just at this point his old friend with endometritis came in to obtain some further stock of the placebo he was "exhibiting" since his disaster in attempting to perform intra-uterine cupric electrolysis with his original faradic battery. How fortunate! "My dear Mrs. B.," he exclaimed, "I was just thinking of you. I have had your case in mind for some time with a view to discover some way to give you a complete cure. Now a new electrode, called the 'bipolar,' has just been introduced to the leading electro-specialists and by its use the most wonderful results are said to be obtained. I shall immediately procure one and put you upon a course of active treatment." Mrs. B. expressed her very great pleasure at the hope of a cure and Dr. Holmes ordered the electrode. It struck him as being a bit careless that the dealers forgot to send the complete pair. Such mistakes caused delay, and were exceedingly annoying, and to receive only one electrode when he especially ordered bi-polar was aggravating. Bi meant two certainly, and two does not mean one! Later the peculiar nature of the bipolar electrode was explained to him and he grasped the idea successfully.

"Now, Mrs. B.," said Dr. Holmes, with the calm confidence born of his library researches, "this electrode produces a remarkable sedative effect. What your womb needs is sedation. It has been inflamed for so many years that we must soothe and quiet it. You see you are not required to remove any clothing. Just recline as usual upon the table, place your feet in the stirrups, whilst I simply insert the electrode and turn on the current. All ready? There

we are! How does that feel?" Mrs. B. did not feel anything. The Doctor cautiously drew out the sliding cylinder and increased the strength of the current. She still felt nothing. He had not discovered the difference between cutaneous applications and the enormous tolerance of the vaginal mucous membrane, and he was perplexed. Bound to persevere, however, he changed the cords to binding posts 2 and 3, which gave the strong current (per directions) and he drew the cylinder out and put it on the table. Mrs. B. now felt sensations, but they were far from soothing. Every now and then the current gave a jump, after the fashion of such faradic affairs as this growing electro-therapeutist possessed. Its vibrator was crude and uneven, and its solitary coil contained probably 200 feet of coarse wire. His glowing fancy pictured it as something superb, for it was a combined galvanic and faradic battery; its solid oak box stood 12-1-2x13-1-2x11 inches, it weighed fully 30 pounds, and he had paid \$38 for it in New York! But something seemed to be wrong with the new electrode! Mrs. B. said it was hurting her. What could the matter be? "Oh! Doctor," she exclaimed, "what are you doing?" Now that new-fangled electrode had been bought with the distinct understanding that it produced a high tension, sedative effect, that it would relieve the pain of pelvic inflammation and establish a local anesthesia. Dr. Holmes was seated by his office pride, wrapped in revelry, and musing upon his expanding knowledge of electro-therapeutics. Suddenly a yell like a Comanche war-whoop broke on his ear. "Doctor," shrieked Mrs. B., "the thing-um-bob is slipping out!" Howl after howl of suppressed but piercing agony followed this exclamation, and the Doctor stood rooted to the spot. Not so Mrs. B. Grabbing him desperately by the only arm she could reach, she cried: "Pull it out. Oh, pull it out; stop the battery quick, quick, it's killing me!"

When the excitement was over, and calm had settled upon the office, Mrs. B. and the Doctor had a talk.

"Doctor," said she, "that sedative electrode is too stimulating for my quiet nature. I have tried cupric-electrolysis. I have tried this here fancy bipolar and I have tried endometritis. I think that with your permission I will stick to the endometritis."

Two weeks after this startling episode a reprint of an article on the "Faradic Current in Gynecology" was forwarded to Dr. Holmes by the author. In glancing through it his eye fell upon this passage of peculiar interest: "The internal os and tissues at the vulva are very sensitive to the Faradic current."

No woman who has passed through the ordeal of child-birth need be told what it is to have a bipolar electrode slip out of position while the current is turned on. It is a catastrophe that should never happen, and when Doctor Holmes administers this form of treatment at the present time he devotes himself to keeping the electrode where it belongs.

Let us now go back to the study of electro-diagnosis. As day after day went by the doctor kept on the lookout for clinical material on which to put his studies into practice. In most of his cases he seemed to have no room to make the diagnosis by electricity, as he readily did it in the usual way. Lumbago, sciatica, measles, rheumatism, the grip; all these and more of his daily practice he knew at sight without searching for R. D. by electrical reactions.

However, he wished to obtain some practical experience in the technique, so he concluded to call in his coachman and demonstrate the method on him.

For this purpose he laid the man at full length on his operating table, exposed leading groups of muscles and moistened his sponge electrodes. With his eye fixed on Pflügers' law and his memorandum pasted in the cover of the box he applied one electrode to the sternum (per directions), while with the other he prepared to test single and various groups of muscles. Time forbids a full account of the difficulties that arose one after the oth-

er to perplex the investigator of the reaction of degeneration in the muscular fibres of his brawny Jehu. Our purpose is served when we report that this series of original experiments led the Doctor to the disappointing discovery that his battery possessed neither slow rheotome nor single contact key, of which the catalogue speaks in the following terms: "This is used for single impulses, to contract single muscles and groups of muscles, a great help in diagnosis!"

Clearly, if he expected to do anything in this line of work he would be obliged to have some further additions made to his apparatus.

S. H. MONELL,

44 West Forty-sixth street,
New York.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

CONTRIBUTION TO THE STUDY OF BILIARY CALCULUS BY SURGICAL MEASURES.

Kehr has lately given to the profession his results in the surgical treatment of biliary calculus. He had reported 81 operations; 53 in the last three years. In 36 cases of cholo-cystotomy practiced "en deux temps," there were no deaths. The production of a biliary fistula is not a dangerous procedure. In but one case did a fistula persist.

The following are the author's conclusions:

1. Many cases of biliary calculi demand operation, and it is important that we operate early.

2. Many may first try a course of Carlsbad water as a resolvent before resorting to an operation.

3. The practitioner must not defer operation until it is too late.

4. The progress of the disease and its intensity often render surgery imperative.

5. We must not wait until all the classic symptoms manifest themselves before instituting radical measures.

6. In some cases of enlargement of the stomach from pyloric obstruction, cancer or hernia through the median line we may mistake these conditions for calculus if we are not cautious.

7. In some cases a tongue-shaped appendage is given off from the liver, which may be mistaken for hydopoviscae, or displacement of the right kidney.

8. Hepatic colic is generally followed by inflammation of the gall bladder, the resulting icterus being caused by a tumefaction of the mucous membrane of the gall duct.

9. Adhesion between the pylorus and gall bladder may give rise to very painful symptoms, which may simulate gall stones.

10. To remove calculi, cholo-cystotomy suffices, and when the proper technique is instituted a cure should always follow.

11. Adhesions should be always thoroughly liberated.

12. We must modify our procedure according to circumstances.

13. In malignant disease, when the gall bladder is much wasted and practically useless we may remove it.

14. Large, impacted calculi in the cholo-duct may be removed by direct incision.

15. Encysted calculi may be displaced and evacuated through an incision in the walls of the bladder.

16. Surgical treatment is never more dangerous than medical.

17. Kehr never had a relapse.

18. This operation may be performed equally as well at home as in the clinic.

19. Only those who have had experience in abdominal surgery should essay these operations.

(Revue de la Etrangere L'Union Med.,
Dec. 10, '94.)

STATISTICS ON RESECTION OF THE INTESTINE.

M. Becker gives the results of the intestine resection performed by Trendelenburg, of Bonn, during the past six years. He had 33 cases in all—5 for strangulated hernia, 11 for artificial anus, 2 for ilius, 1 for ap-

pendicitis, 4 for stercoraceous fistula, following perityphlitis, 1 for stercoral fistula, following ulcer of the colon, 3 for cicatricial fistula following tuberculosis and 6 for tumors. Of this number 21 were cured. His experience convinced him that artificial anus succeeded better than resection in cases of sphacelus, in hernia.

L'Union Med., Dec. 10, '94.

INVAGINATION OF THE INTESTINE IN INFANTS.

By M. Hirschprung.

This author had seen 64 cases of intussusception in children—46 in infants under one year, 36 were nurslings. In the 64, 38 recovered, or 60 per cent.

He divided this affection into that of the ileum, the ileo-cecal and colic. Ileo-cecal is the most common. It comes on suddenly, and commonly disappears from 24 to 48 hours. When not spontaneously relieved the infant goes into collapse, the temperature falls and the urine presents Roubaux's test. The tumor appears in the right iliac fossa.

The most common age for intussusception of the colon is under the first year. The affection comes on slowly, being generally preceded by diarrhea or rectal tenesmus, and blood with mucus is freely passed. The most frequent seat is in the sigmoid flexure of the colon. Fecal vomiting is rare. Intussusception of the small intestine comes on brusquely, usually in infants over nine months old. Its cause is very obscure. Obstruction, it seems, is not complete in this type.

In order to accurately examine these cases an anesthetic should be given to relax the abdominal walls. When the symptoms are not too urgent in some, one may liberate the bowel by massage. Ileo-cecal invagination may be often overcome per enemata. When these fail, laparotomy offers the only hope; but to secure the fullest benefit we should not delay too long.

(66th Reunion des Naturalistes et Medecins Allmands. Vienne, 24 an 30 Sept., '94)
(*Le Mercredi-Medical*, 5 Dec., '94.)

ON THE INSUFFLATION OF AIR OF THE PERITONEUM IN TUBERCULOUS PERITONITIS.

By M. C. Dr. Folet.

The author subscribes a highly valuable note on the above subject. He tells us that Spencer Wells, when about to remove an ovarian cyst, in 1862, came onto an extensive mass of tubercule and ascites, which he cleared away partly with the tumor. The patient fully recovered from the operation and never again had any more terrible pain from the tubercular disease of the viscera.

König was the first to formally recommend laparotomy and practice it for tuberculous peritonitis in 1882. After this cases multiplied in every direction in which operation was invoked for tuberculosis of the peritoneum, especially in France, England and Germany.

Adelbert, in 1892, in his inaugural, in Paris, reported 308 cases which he had collected. Roerch, of Liege, last year gave the records of 50 cases. The mortality of the operation is small. In 358 cases operated on 32 died soon after operation, while 51 more sank at later stages, many with tuberculous invasion of other organs. The cases which offer the best prospects of recovery are the subacute, chronic or encysted. The dry, fibro-plastic variety, with infiltration and puckering of the epiploon give the worst results.

What is the mechanism of cure? Here we are in a field of hypothesis. Probably the admission of air excites a healthy inflammation, which tends to disintegration and absorption of the neoplastic elements. Possibly the major part of the microbic elements are washed away with the ascitic fluid drained off.

Another view is that in all surgical operations on tuberculosis of the peritoneum, a detergent action is brought about by the use of a free lavage of medicated solutions, as those partly composed of thymol phenic acid, bichloride, boracic acid, salicylic, etc., besides, by touching the affected parts with iodoform, iodine, or curetting their granular

surfaces, and drainage itself may exert a salutary influence.

In May, 1892, Professor Mosetig Moorhoff, of Vienna, on operation for tuberculosis of the epididymus of a boy of 12 years, found the spermatic cord and peritoneum affected, extensively, by the same pathological condition. He then introduced a tube through the infundibuliform—process and evacuated 1700 centilitres of a whitish fluid. He then inflated the abdomen through the same tube until the belly was quite tympanetic, when he withdrew the tube and closed the wound, the boy making a rapid and perfect recovery.

(Revue De Chirurgie, 10th Dec., '94.) T. H. M.

INCISION OF THE PERICARDIUM FOR PURULENT PERICARDITIS.

Von Eiselsberg (Wien. klin. Woch., No. 2, 1895) relates the case of a youth aged 17, who in October, 1893, received a punctured wound in the cardiac region, penetrating for 2.3 cm. The wound gave no pain, and was cured without medical treatment. A month later the patient began to suffer from dyspnea, cyanosis, edema, frequent small irregular pulse, increased cardiac dullness, apex beat no longer visible, no murmur, temperature not much raised. As the dyspnea got worse, and there was much cough, the pericardium was punctured with a fine trocar, and a litre of purulent fluid withdrawn, followed by marked amelioration of the general condition, and rapid reduction of the cardiac dullness. A few days later the patient was as bad as ever, and the aspiration was repeated, 900 g. of purulent fluid being withdrawn. Once again a litre of pus was removed by aspiration, and as the patient then had signs of pleuro-pneumonia on the left side it was decided to open the pericardium freely. This was done at the level of the fourth left costal cartilage, which was resected. A transverse incision of 4 cm. was made in the pericardium, and 2 litres of purulent fluid mixed with many large clots of fibrin were let out. The

cavity was washed with a solution of salicylic acid, and two drainage tubes inserted. Marked improvement followed the operation, and the wound healed completely in 21 days; at the same time the other symptoms disappeared. Bacteriological examination of the pus showed the presence of the bacterium coli.

MODERN METHODS OF INTESTINAL RESECTION AND ANASTOMOSIS.

König (Centralblatt für Chirurgie, No. 4), whilst recognizing the fact that modern methods of establishing intestinal anastomosis by bone plates, metal buttons, etc., favor rapidity of operation, holds that a prolonged laparotomy does not lead to shock. He states that in the many operations he has performed for intestinal resection and anastomosis he has never met with an instance in which death could be attributed to shock. In this conclusion, he states, he is supported by a large majority of his German colleagues. For this reason he is not disposed to substitute for older and safe operations, which may take some time in their performance, rapid methods the safety of which seems to him to be doubtful. That the use of Murphy's button may serve to extend the practice of resection, and thus enable inexperienced surgeons to perform these operations, is regarded as being, as far as the patients are concerned, rather a disadvantage than an indication of advance.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

CAUTERIZING IN PURULENT OPHTHALMIA.

The manner of practicing cauterizations in the treatment of purulent ophthalmia, according to Abadie, is to evert the upper eyelid and brush thoroughly with a solution of nitrate of silver, 3 per cent, then apply cold compresses, and to instil every hour

some drops of a solution of nitrate of silver of strength of 1 per 1000. The cauterizations are repeated morning and evening, until marked improvement occurs, when the strength of the solution is decreased. The main point is to apply the solution to the entire upper eyelid. If the lid cannot for any reason be completely everted, the external commissure should be divided sufficiently for the purpose.—Bull. Gen. de Therap.

CAUSES OF PARAPLEGIA IN POTTS' DISEASE.

JABOULAY.

This variety of paraplegia is usually due to a lesion in the anterior part of the cord and membranes. When the lesion is situated in the cervical region it is generally the result of a bony projection pressing on the cord. The most common cause of compression in this region is from deviation of the odontoid process.

In the dorso-lumbar region the lesions are more diffused and often attack the whole thickness of the cord. When there is no deformity the disease may be caused by an abscess or by congestion, or by the products of inflammation, or by arrested development of the spinal canal.

Pressure from this cause gives paralysis more or less rapid and pronounced, according as the process is rapid. The disease may get well spontaneously, by rest and immobilization.—Annales d'Orthopedie.

ERGOT IN PHTHISIS.

Ergot is recommended as a remedy for the night sweats of phthisis, by Goldenbach. Its efficiency is due to its action on the vaso-motor nerves.

A NEW TREATMENT OF WHOOPING-COUGH.

Lyon Medical for January 13 publishes an abstract of an article from the *Medecine Moderne* for December 26, 1894, in which M. de Chateaubourg describes a new treatment of whooping-cough, which consists in injecting, subcutaneously, two cubic centimetres and a half of a ten per cent. solution of guaiacol and eu-

calyptol in sterilized oil. After the third injection the fits of coughing diminish noticeably, the appetite returns, and, as the vomiting rapidly ceases and the general condition begins to feel the good effects of the treatment, the whooping-cough disappears at the same time. The author reported five cases.

THE TREATMENT OF DIPHTHERITIC ANGINA WITH A CONCENTRATED SOLUTION OF CORROSIVE SUBLIMATE IN GLYCERIN.

The *Gazette Hebdomadaire de Medecine et de Chirurgie* for January 5 contains a review of an article by M. Goubeau and M. Hulot, which appeared in the *Archives Generales de Medecine* for September and October, 1894. In 44 cases, says the writer, the authors employed this treatment, which consisted in painting the false membranes with glycerin containing five per cent. of corrosive sublimate twice during the 24 hours. The paintings should be confined as much as possible to the false membranes, which should never be detached, and if too much of the sublimate has been used it must be wiped off immediately with a dry brush. These applications were not painful in the majority of cases, and the false membranes seemed to dry in their place and fall off without being reproduced. The secondary infections and the adenopathy disappeared very rapidly, the general condition improved quickly, and no symptoms of mercurial poisoning supervened even in very young infants. The mortality was 4.7 per cent.

RESTORATION OF LIFE BY RHYTHMICAL TRACTIONS ON THE TONGUE.

Discussion before the *Academie de Medecine*, December 4, 1894; *La Semaine Medicale*. M. Laborde re-

lated a fresh case of recovery by rhythmic tractions of the tongue; the subject was a new-born child in a condition of apparent death after delivery with forceps. After having, by the use of lingual traction practiced for ten minutes, brought the child to life, M. Guiet, to whom this observation is due, was obliged to leave the child to devote himself to the mother. Returning to it, he found it apparently dead; he then resorted to the usual procedures—artificial respiration, friction, etc., without avail, for ten minutes, when he resorted again to this method, with complete success in six minutes. He considers this conclusive proof of the superiority of rhythmical traction of the tongue over other methods. Replying to M. Tarnier, who advocated insufflation as a process easy of application when mastered, and much more efficacious, he said that insufflation merely inflated the lungs, and did not excite respiratory reflex. This was accomplished, he maintained, by stimulation of the superior laryngeal nerve or traction of the tongue—one and the same thing; then only did air actually penetrate the lung. M. Tarnier argued, however, that his clinical experience taught him that the respiratory reflex was accomplished when air mechanically entered the lungs. M. Pinard said that he had failed to restore newly-born children by the method advocated, but had succeeded by insufflation.

TREATMENT OF ASCITES.

Finsen (*Ugeskrift for Laeger*, Nos. 38, 39, 1894), who for ten years had suffered from ascites (due to congenital heart affection and hydatid of liver), and had tried all usual remedies in vain, attempted to "dry up" his ascites by bringing as little fluid as possible to the system. For nine days he took only 400 g. of fluid in the 24 hours, with the result that three or four days after commencing the dieting his diuresis increased in quantity from 800 c.cm. on the first day to 1100 to 1200 c.cm.

on the third to the fifth day—an amount which he had not passed for years. At the same time the other distressing symptoms disappeared. He has since been able to keep his ascites in check by being careful not to imbibe too large quantities of fluid, and when he finds it increasing again adopting a dry regimen. By way of experiment he once brought on an ascites in ten days and got rid of it in another ten days. When the ascites was great and the diuresis small the treatment was slower in taking effect. When the diuresis was 800 c.cm. it was easy to get rid of the ascites by a not very severe diet; but of late years, when it has often been only 400 to 500 c.cm., the author has had to be much stricter in his dieting. He found by experiment that when the diuresis was 500 c.cm. he had to drink 300 c.cm. less daily to get the same result as when it was 800 c.cm. To expedite matters he has of late years combined the dry dieting with 7 to 8 g. doses of light magnesia daily or every other day, and was able to free the system from 700 to 800 c.cm. fluid by purging only. In spite of this treatment the author was able to carry on his work. He also tried 5 g. doses of chloride of ammonium and dry dieting, but, though less exhausting, this method was not so rapid as dry diet and magnesia. As regards the increase in the diuresis, which was almost in inverse proportion to the fluid imbibed, the author is inclined to think that, whenever there is a retention of fluid in the body in open connection with the lymphatics, absorption from it will not commence until the blood has reached a concentration requiring dilution. As a rule the increase of urine began first a few days after the commencement of the dieting, and these first days were the most distressing, with great thirst, dry tongue, and salt taste of the saliva. As soon as the diuresis began—generally on the third or fourth day—these symptoms disappeared. It must be assumed that the blood during the dry diet becomes concentrated, and when it has reached a certain degree of concentration the

absorption begins from the lymphatics, and it would seem as if the absorption, having once begun, becomes more and more easy. And by the commencing absorption of the ascites the diminished intraperitoneal pressure on the liver and kidneys allows a freer passage of blood through them.

INJECTIONS OF SHEEP SERUM IN THE TREATMENT OF SYPHILIS.

In the *Presse Medicale* for January 12 there is a review of an article by Dr. Istamanoff, which appeared in *Vratch* for November 24, 1894. The author, says the writer, tried this method in 16 cases of syphilis, and in 13 the injections caused the disappearance of all the secondary symptoms; in the 14th they had no result; in the 15th the symptoms returned as soon as the injections were discontinued; and in the 16th the roseola disappeared, but the ulcerated papules were not modified, so that the author had to resort to local treatment with calomel.

The serum was taken every day from a sheep's carotid artery; and injections of from two to six cubic centimetres were administered every day, or at intervals of two or three days, ordinarily in the buttock. The largest number of injections given to each patient was 15. The author found that they were always painful, sometimes extremely so, and that each one gave rise to a slight increase of temperature, which did not exceed, however, 98.9 degrees F.

With regard to the curative value of this treatment Dr. Istamanoff admits that the injections cause the disappearance of the visible manifestations of syphilis in the secondary period, but the smaller number of cases and the short time during which the patients were under observation did not enable the author to say whether or not these injections really cured syphilis and prevented its recurrence.—*N. Y. Med. Journal*.

Miscellany.

A SUICIDE'S BRAIN AND ITS MORPHOLOGY.

Burthilder (*Journal of Nervous and Mental Diseases*, 1894) gives an account of the post-mortem examination of the brain of an educated and apparently moral person who committed suicide. Dr. W. J. B., aged 35, dentist, shot himself with a pistol through the middle of the forehead, and through the right temple. The fissures and convolutions of the brain showed the following abnormalities: (a) Excessive development of the external occipital fissure, constituting, together with the internal, a deep cleft separating the occipital lobe from the parietal. This corresponds to the *Affenspalte* of anthropoid apes, and is a stigma of defective evolution. (b) Duplication of both central fissures (fissures of Rolando); (c) in the left hemisphere these passing into and becoming confluent with the Sylvian. (A mark of abnormality which Benedikt has shown to characterize ill-balanced and criminal brains.) Other abnormalities are also shown in the left frontal lobe at its posterior part. (d) Further, as was pointed out by Dercean, the left parallel fissure pursued a markedly ascending course, and joined the posterior part of the Sylvian—another feature of degeneracy. Personal studies in the patient's heredity seem to have shown that suicidal and insane tendencies were present in the ancestors; thus confirming the data of brain morphology.

THE CLUB FIGHT AT CORK.

Matters are progressing rapidly in connection with the club fight. So far six of the clubs have accepted the reasonable terms of the medical men. Some time ago funds were subscribed for the purpose of defraying current and other expenses, but as it was felt that something more

should be done a meeting was held last Wednesday, and a sum of 450 pounds was at once handed in. It is very much to the credit of some of the club practitioners that, though they have lost their clubs, they individually subscribed 15 and 20 pounds to the medical war chest.—Lancet.

Wayside Notes.

By E. B. Sangree, M. D., Philadelphia.

I wonder who is going to be the pioneer in calling a halt on the patent medicine advertisements? For some time I have been looking for Anthony Comstock or some other energetic fellow to take up the matter. Who is going to draw the line at where propriety ends and impropriety begins? I have been watching with much interest for some years the evolution of this class of advertisement, and some of those of the present day fairly make me stand aghast. There is not much in our medical books with regard to one's internal economy that is hidden from the reader of the daily paper.

I am simply amazed to read over women's signatures letter after letter detailing private ailments of such a nature that one would fancy a woman to hesitate twice before even modestly revealing them to her family physician. One woman, for instance, giving her name and address and also her picture, says in effect that the doctors told her she was in such a condition internally that she could have no children, but thanks to Lavinia Prinkem's compound, she now had a "dear little babe six weeks old." (Baby's picture given to prove assertion). She then adds that previous to using this remarkable compound she had "experienced great pain at her menstrual periods, and was compelled to go to bed for several days; that she suffered from bearing down sensations, leucorrhea, itching, pain in the bladder" and several more sensations that I cannot now recollect.

In another paper a young Philadelphia shop girl, whose picture, name and address are also given, graphically details the severe pains she experienced during her menstrual periods, with other data of equally interesting character with regard to her pelvic organs, closing, of course, with encomiums of the "Compound" for making her monthlies regular now and free from pain. But, great Caesar! I had always thought that a young girl would prefer being chopped in little pieces to publishing far and wide ills of such a character.

* * *

Why, I ask, if the women are allowed to tell all about their leucorrhoeas, prolapses uteri, etc., are the men not to be given the same privilege?

Has not Dr. Bobb, for instance, whom young people are advised to "consult after all others fail," a perfect right to publish John Smith's picture with his name and address; the same Smith certifying that though he had been treated for gonorrhea on five different previous occasions, Dr. Bobb's medicine cured him of the sixth attack far more quickly and satisfactorily than he had been cured before, and closing with the assurance that he would consult Dr. Bobb immediately next time, and advising others to do the same.

* * *

Between theatrical bill-board posters and anatomical cigarette cards, the literature on lost manhood so generally distributed by the "retired missionary from India," and the diurnal pelvic patent medicine advertisement, the young person of the present day probably knows much more about himself and others than his great-grandfather did when he came to give up the ghost.

"De trouble 'bout de spirit ob perseverance," said Uncle Eben, "am dat it's too lib'le to strike a man hahdest when he's intiahly in de wrong."
—Washington Star.

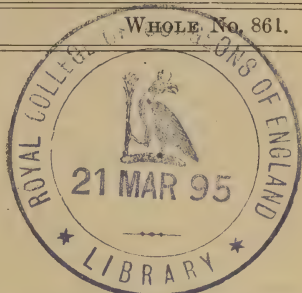
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PHILADELPHIA, MARCH 9, 1895.

WHOLE No. 861.

Original.



PHENACETINE BAYER.

J. R. CLAUSEN, A. M., M. D., Phil-
adelphia.

It is an undisputed fact that leading physicians have long been looking for some substitute for those narcotic drugs, admittedly crude and often dangerous, which they have reluctantly used for the want of more desirable medicaments. Especially has the need been felt of a medicament that would relieve or quiet pain and at the same time reduce animal temperature, no matter how intense the febrile condition, without its use being followed by heart depression or toxic or accumulative effects.

We believe that such a medicament has been discovered in Phenacetine-Bayer, a product of the extensive Farbenfabriken Laboratories of Elberfeld, Germany.

Their statement that "the employment of Phenacetine-Bayer has been characterized by a measure of clinical success unparalleled in the annals of modern synthetic drugs," is no exaggeration, as many eminent physicians are prepared to testify. I have used the remedy extensively in my own practice and am prepared to say, with others in the profession, that it stands far in advance of all of the heat resolving products of the aromatic series, and to be a safe, pleasant and most convenient therapeutic agent.

In the treatment of scarlet fever I find the use of Phenacetine-Bayer very effective, especially when rheumatism is one of the complications. It acts promptly and effectually in relieving the acute pains,

while at the same time it reduces the fever and soothes the entire nervous system. My experience in many cases of scarlet fever bears testimony to the value of phenacetine in securing these objects of treatment. While in many cases I have combined Phenacetine-Bayer with other medicaments, I have yet regarded it as the essential factor in reaching the satisfactory results referred to.

In the treatment of rheumatism, both acute and chronic, I can bear testimony to the efficiency of phenacetine. I have found it to act promptly in cases where the salicylates and iodides have failed. In acute rheumatism I have found phenacetine specially effective in quieting the pain and reducing the fever and tumefaction.

In "spinal meningitis," after trying every other remedy in general use without satisfactory results, I have found that phenacetine at once relieves the existing pain in the head, which is such a distressing symptom of that dread disease, while at the same time, it guards the extreme nervous condition of the patient, allays the pain in the limbs and restores the skin to its normal condition and color. In short, it is my belief, based on actual experience, that there is not a complaint whose pain is combined with fever in which phenacetine will not be found an invaluable remedial agent, and while making no claim to the universality of phenacetine as a remedy, I yet make this statement in the full knowledge that any remedy which subdues both pain and

fever must be widely applicable, since these characteristics are symptomatic of a very wide range of pathological conditions, and I cannot speak with too much emphasis in urging the profession to give it an intelligent trial.

Illustrative of the above assertions I will cite two cases recently occurring in my practice.

M. C., female, age 6 years, was taken sick with the following symptoms: vomiting, pain in the head, fever (temperature of 104 degrees F.), had some pain about the chest, but not located well; considerable oppression in breathing, cough, short and hacking; some nasal catarrh. On examination of the chest no consolidation could be found, but mucus rales were numerous. No history of exposure to any exanthematous disease could be obtained. It was ascertained that the child had been subject to more or less bronchial catarrh off and on for two years, or since an attack of measles. It was also learned that she had been indulging in sweets for a few days previous, the time being just subsequent to Christmas-tide. As the fever was rather high in comparison to the other symptoms I thought best to try phenacetine, and administered a five grain powder, ordering it to be repeated every four hours. The effect was very pronounced. In less than two hours the child was quiet, perspiring gently, headache gone, and fever reduced to 101 degrees. The following day she said she felt better, and the fever was absent. The bronchial irritation continued for a few days, but subsequently disappeared.

Mrs. G., a patient, was subject to neuralgic headaches, due to uterine conditions. She had tried many temporary therapeutic measures, but until she was given phenacetine she experienced no marked relief. She was opposed to radical local treatment for her condition, and would only come for relief when her headaches were especially distressing. Phenacetine in doses of 10 grains every two or three hours would always afford relief after one, two or three doses had been administered.

THE INDICATIONS AND NATURE OF TREATMENT IN SEVERE ABDOMINAL INJURIES AND INTRA-ABDOMINAL HEMORRHAGES UNACCOMPANIED BY EXTERNAL EVIDENCE OF VIOLENCE.

BY JOHN B. DEAVER.

PHILADELPHIA.

Continued from last number.

M. E., aged 24, nurse, admitted to German Hospital January 20, 1893. While lifting a heavy weight from an elevator she felt something give way in her abdomen. This was immediately followed by severe lancinating pain in the right ovarian region. She was menstruating at the time. Pelvic peritonitis promptly set in. An examination demonstrated a tumor in the right broad ligament about the size of a hen's egg. The peritonitis and tumor subsided to treatment, and she made a slow recovery. Diagnosis, pelvic hematocoele from rupture of an engorged ovarian vein.

Hemorrhage itself is seldom the cause of death, but associated as it is with shock, the degree of which is out of all proportion to the severity of the accident, it is frequently fatal in a very short time. When the peritoneum is wounded shock is still more profound, the so-called peritoneal shock.

Hemorrhage within the peritoneum is sometimes very slight and distinctly localized, and may occur several times during the course of the illness. It may take place between the layers of the broad ligament, and soon stop from the pressure.

I report the two following cases of hemorrhage from my list of operations for ruptured extra-uterine pregnancies, as they illustrate so ty-

pically the wisdom of immediate operation:

Mrs. A. K., aged 31 years, admitted to the German Hospital, September 21, 1894, with the following history. Six months prior to admission she had been subject to attacks of vertigo, pain in the back and limbs, and for the last six weeks to a constant bloody vaginal discharge. Examination revealed a retroflexed uterus with a slight tear of the cervix, and the presence of a small movable mass behind and to the left of the uterus.

September 25, four days after admission, the patient was etherized, and the uterus was dilated and curetted. After the operation the discharge stopped, but the patient gained in strength very slowly. She was advised to submit to abdominal section, but preferred to wait until she was stronger. On the night of November 22 she awoke with a severe pain in the right side, and on attempting to walk to the water closet fainted. After being returned to bed she again fainted and went into a collapse, the pulse becoming almost imperceptible, and the temperature falling to 96 degrees. Under active stimulation she reacted. The diagnosis was made of internal hemorrhage from rupture of a probable extra-uterine pregnancy.

The abdominal cavity was found filled with fluid blood and clots, and the right tube ruptured. The tube was tied off, and the abdominal cavity flushed with hot saline solution, a glass drainage-tube introduced and the wound closed. The patient was not much shocked by the operation, but on the contrary seemed rather improved. The drainage-tube was removed on the third day, the wound healed by first intention, and the patient made a good recovery.

Mrs. J. W., aged 36 years, was admitted to the German Hospital, November 21, 1894, with the following history. About 2 o'clock on the morning of admission she was seized with a violent pain in the lower abdomen. For this she took some whiskey, and was somewhat relieved. At 9 o'clock the same morning she started for market, and was suddenly taken

sick, becoming very weak and suffering from a violent pain in her abdomen. She returned home with difficulty and called in Dr. Hand, who advised her immediate removal to the hospital. At the time of admission she was very weak, and there was distinct tenderness over the abdomen with slight dullness on the right side. Immediate operation was advised and consented to.

When the peritoneal cavity was opened it was found to contain fluid blood and clots. The right tube was the site of a small rupture, and was tied off and removed. The abdominal cavity was washed out with hot saline solution, glass drainage introduced and the wound closed. The patient was very much shocked by the operation and reacted slowly. During the operation hypodermatoclysis was practiced. The drainage-tube was removed on the fourth day, the wound healed by first intention, and the patient was discharged well, on the 23d day.

The following case of hemorrhage from ruptured extra-uterine pregnancy illustrates the danger of delay as strongly as did the two previous cases the efficacy of prompt interference:

Mrs. P., aged 30 years, was a patient of Dr. S. Cooke Ingraham, of Wissahickon, this city, who furnishes the following history:

I first saw the patient on January 29, 1892. She complained of severe abdominal pains, of a bearing down character, and of a sense of fullness in the epigastric region. She had been married seven years, but had never been pregnant, and laughed at the possibility. For the past three years the menstrual flow had been decreasing in amount, and for several months past had been very scant. The breasts were slightly enlarged, but the areole were not darkened. The glands of Montgomery were a little more prominent than normal. She had suffered from morning vomiting for the past month.

I was hastily summoned to see the patient on the morning of February 2, and found her in a state of collapse, pulseless and with a tempera-

were normal. She did not complain of pain. Examination of the abdomen and per vaginam and rectum failed to reveal any mass, although a circumscribed area of flatness could be demonstrated low down and to the right side. She continued in this condition until February 12, when at her request she was discharged. On February 23 she was readmitted at Dr. Ingraham's earnest request. At the time of the second admission the abdomen was markedly distended, being tympanitic above and flat below. Pulse 116, temperature 101.5 degrees. She complained of considerable pain.

The following day she was operated on, and when the peritoneum was opened a fetus with clots and fresh blood gushed out. The ruptured sac occupied the right iliac region, and was tightly adherent to the neighboring coils of small intestines, to the cecum and to the vermiform appendix. After a prolonged and tedious dissection the sac was enucleated; this was accompanied by very free bleeding, which necessitated packing of the cavity with gauze. The wound was closed with the gauze packing in situ. The patient died the following day of hemorrhage.

The immediate effects of an injury severe enough to cause a serious lesion of an abdominal viscus are sometimes so slight as to be misleading. Very often a patient with such a condition will walk to a conveyance or to the hospital, complaining only of a slight pain. In varying periods of time following the injury more decided symptoms will develop, viz., signs of hemorrhage if the solid organs be involved, and early peritonitis if the hollow viscera be ruptured or torn sufficiently to allow their contents to escape. When this occurs operation is imperatively demanded without delay. This is also true of hemorrhage consequent upon ture of 96.5 degrees. She reacted to active stimulation, and was sent to the German Hospital for immediate operation, a diagnosis of ruptured extra-uterine pregnancy of the tubal variety having been made. Upon admission her pulse and temperature

the rupture of an extra-uterine pregnancy, be it traumatic or spontaneous. In ectopic gestation operation will be necessary in every case at some period of its history; therefore, if a diagnosis can be made, or even a well-founded suspicion of the condition exists, rupture should not be allowed to occur. If rupture does occur, however, immediate interference is the only certain means of saving the patient's life. The longer the operation is deferred the greater the risk to life. Hasty operations, often necessitated by the patient's condition, are likewise less liable to reach a favorable termination. Blood clots or intestinal or gastric contents cannot be washed out of the peritoneal cavity except by prolonged and repeated flushing.

The almost universal fatality of intra-abdominal lesions of traumatic origin is so well recognized that it seems as if there could hardly be any question as to the wisdom of opening the abdominal cavity. I would not be understood as meaning that abdominal section should be used as a means of diagnosis, but on the contrary, I believe that every known means, with attention to the most minute details, should be exhausted in establishing a diagnosis. When a diagnosis is impossible abdominal section is justifiable only when it becomes the last and only chance for the patient.

I have refrained from using the terms exploratory and diagnostic incisions, believing that they not infrequently serve as a shield to cover a lack of diagnostic ability. It is a moral obligation resting upon every physician and surgeon to develop to the utmost of his ability the highest diagnostic attainments.

Aseptic surgery has undoubtedly been one of the greatest boons to humanity that this 19th century has brought forth. But to me it seems that it affords a great temptation to men who have not had experience and surgical training, and who have, therefore, not fully developed their diagnostic skill to do operations which are not necessary for their patients' good or with a scientific precision.

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CONSUMPTION AS AN INFECTIOUS DISEASE.

The universal furor with which sanitary boards are seized at the present time in considering tuberculosis a contagious and infectious disease amounts almost to the ridiculous.

While we are in accord with all the necessary requirements that obtain in the protection of the community from devastating diseases, yet it must be acknowledged that the infectiousness of consumption is far from being proved. We know that there are many cases of supposed infectious origin relative to the production of this disease, but what of the cases that occur irrespective of infectious or contagious element? (and there are many).

We note certain Cincinnati daily papers are flourishing the pro and con of this question with flaming headlines, and regret to see names of reputable physicians mixed up with those whose reputation has been severely questioned in this matter.

Of the point of infectiousness in this disease we have before stated our belief very clearly.* Tuberculosis, being dependent on an entirely different primary etiology than micro-organic deposits becomes affected by such micro-organisms only as the primary condition develops. This primary condition being in no wise a contagious or infectious one in the true sense of infection and contagion, it follows that consumption, per se, cannot be received by one individual from another. At the same time if a person presents in his system the planting ground for the tubercle bacillus there is no doubt but that it will generate other tubercle bacilli, whether the germ be received from another person or from the air we breathe, which is even more probable.

The putting of consumptives in hospitals especially designed is an excellent thing so far as it applies to the poor and those whose home comforts are limited, but as a preventive measure intended to limit the disease to those already affected, and insure the healthy, it is all wrong, for it will not serve as an aid to the well, and only will add unnecessarily to the misery of those who are victims of the disease and unwilling to enter any such institution.

A grim forecast made by Dr. Bennett, of England, recently, but one eminently to the point, is the following:

"Social relations would be all but disorganized; a consumptive patient would be considered like a leper in olden days, one to be separated from his family, to be isolated, shut up. He would have to live months—nay, years—in a tent; his clothes should be destroyed, and whether he dies or recovers the house which he has inhabited should be burned. It would, perhaps, be a charity to mankind to kill him at once, like an animal attacked with rinderpest; for, as the duration of the ordinary forms of phthisis may extend over years, during that period every time he breathed he would be filling the atmosphere with the germs of disease,

*See first five numbers of present volume of "Times and Register."

wafted by the winds to be scattered far and near." To this Dr. Ransom, in an article on "The consumptive scare," in the January number of the Medical Chronical, adds: "Such is the logical sequel of the doctrine of the contagion of phthisis, carried to an extreme as it is now being carried by many, especially in Germany and France. The result of such teaching as I have described is already becoming apparent in many directions. Persons affected with almost any chest disease find it difficult to obtain places as domestic servants. The close ties of family affection are not always strong enough to induce relatives of consumptives to undertake what is considered to be the dangerous duty of nursing them. The sites for consumption hospitals are becoming as difficult to find as those for fever, and utterly unfounded reports as to the spread of the disease by such institutions are recklessly made, even by medical officers of health."

BLOODLESS OPERATIONS FOR HEMORRHOIDS.

Although many simple cases of piles may be promptly remedied by constitutional measures, conjoined with some sort of local, simple remedy, there are other cases of a more complex pathological character, in which chronic interstitial inflammatory changes, with peripheral induration and ulceration of the mucous membrane, cause so much irritation and distress, and so stubbornly resist topical medication, that nothing short of total destruction of the acinous extruded mass will effect a cure.

But what species of radical interference shall we resort to which carries with it those fundamental essentials, which we should always keep in view when we are about to make a final appeal to surgery, which is the least dangerous to life and most permanent in its effect? We unhesitatingly say—speaking on general surgical principles—that that procedure should have preference, which entails the least mutilation, consecu-

tive dangers of inflammation, hemorrhage, ulceration or tetanus, and that the latter is something more than a visionary surmise is supported by the following from a late issue of the London Lancet:

"Tetanus Following the Treatment of Piles by Ligature.—In the Polish Gazeta Lekarska, No. 49, 1894, p. 1231, Dr. Henryk Gotard, of Warsaw, relates the following extraordinary case: A well-nourished and generally healthy white-smith, aged twenty-four, was admitted to a local hospital on account of slightly-bleeding external and internal hemorrhoids of twelve-years' standing, accompanied by very painful anal fissures. The patient being brought under the influence of chloroform, the piles were ligatured, and the anal orifice forcibly dilated (dilation forceee), after which the parts were washed out with a 1 to 3000 solution of corrosive sublimate, and an aseptic iodoform dressing applied. On the fifth day he was given a tablespoonful of castor oil, with the result that an abundant defecation ensued. During all the five days the young man's condition remained quite satisfactory, but on the sixth there appeared trismus. During the next two days there developed all typical manifestations of severe tetanus, accompanied by a high rise of temperature (up to 40.8 degrees C.), profuse perspiration, and steadily increasing prostration. In spite of hypodermic injections of morphium, etc., the patient rapidly grew worse, and, on the ninth day after the operation died. The post-mortem examination was refused by his family."

Instances have come to our knowledge in which, after excision, an excessive hemorrhage has followed: in others, inflammation has set in, resulting in an extensive abscess formation, which, breaking through, left several troublesome fistulae. If our patient is diabetic, the wound will not heal, and a large open sore will follow.

It is much better, then, if we can cure the hemorrhoidal state by other measures than excision, to do so; for, though Whithead's operation of dissecting away the whole mass is

radical, still, often, after the wound heals, cicatricial contraction follows.

Pressure, massage, conjoined with a local analgesic, in a large measure, fulfills all requirements, as a general rule, and if for no other purpose, commends itself, because, at all events, it will add no fresh complication to the already painful trouble.

Of late electricity is coming into use in the treatment of various types of piles—as the thermo-cautery puncture, as a stimulant to absorption, and agent for the re-establishment of healthy local action. It is almost unnecessary to add that in radical treatment, bodily rest conjoined with such other therapeutic expedients as will restore activity in the portal circulation and promote healthy action in the liver, are desirable, inasmuch as there are good reasons for believing that the painful hypertrophied varicis are only indices or some derangement in the chylopoietic viscera.

MEDICAL PRESCRIPTIONS.

Pharmacists suggest that physicians add the patient's name as a wise safeguard to their prescriptions.

The methods pursued by druggists in making up prescriptions, particularly with reference to the manner of delivering the medicines to the patient or messenger, were discussed at the Pharmaceutical meeting of the Philadelphia College of Pharmacy, and several systems that had been tried at various times during the last 50 years were explained by different members. Professor Trimble, in opening the subject, referred to the case of a drug clerk who had inadvertently given a customer a wrong bottle, the sad result of which had been the death of a child to whom the medicine had been administered. The physician had prescribed a harmless cough preparation, and the clerk compounded the medicine at the same time that he was engaged in mixing an opium preparation which he afterwards handed to the father of the child by mistake. Professor Trimble said he had found that a system of check

numbers, however carefully carried out, was by no means a sure safeguard, as many patients, through ignorance or carelessness, either lost the card given them when presenting the prescription, or threw it away. Eternal vigilance, he maintained, was the only surety against errors, but he strongly advocated a general rule of physicians writing the patient's name on each prescription, a practice that was followed by many prominent medical men and received the indorsement of pharmacists.

Book Reviews.

SURGERY TWO HUNDRED YEARS AGO. Illustrated from Original Copper Plates. Supplied by the Antikamnia Chemical Company, St. Louis, Mo.

This little brochure is of considerable historical interest. It is illustrative of some of the barbarous methods applied before the introduction of anæsthetics. Illustrations of amputations, lithotomy operations, transfusions, trephining, etc., are made.

ANTISEPSIS AND ANTISEPTICS.

By C. M. Buchanan, M. D. Published by the Terhune Co., Newark, N. J. Price, \$1.25.

This little work deals with the history of antiseptics from earliest times to the beginning of the Christian era, thence to the beginning of the 18th century, thence to the first six decades of the present century and, finally, from the advent of Lister to the present time, in successive chapters.

The various antiseptics are considered and the value of each given. It is a useful volume.

THE NEW MEDICAL EPOCH OF HEMATHERAPY. Issued by the Bovine Company, New York.

This brochure contains articles on the subject from various physicians. It is throughout a memoir of purely scientific work. This new method of application of the vital fluid directly to the diseased parts to which

the name hematherapy has rightly been applied deserves more than a passing notice from the medical profession.

Several illustrations are introduced into this work showing where extensive ulcerating surfaces have been completely healed by the outward application of bovine. Cases are cited by eminent authorities showing magnificent results by the use of this agent both internally and externally, especially in such ulcerative diseases as typhoid fever.

THE PHARMACOLOGY OF COLA ACUMINATA. Third edition, revised and enlarged, with illustrations. Parke, Davis & Co., Detroit, Mich.

This drug is coming into prominence at the present time as a stimulant and this pamphlet gives accurate and valuable information on the subject.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Vol. 16. 1894.

This volume contains all the papers read in the College of Physicians in Philadelphia during the past year, some of which have been published in this journal. It also contains a list of Fellows of the Society.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Eighth session, 1894.

This volume contains some very valuable papers on orthopedic surgery.

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY.

This pamphlet contains the proceedings of the one hundred and third meeting held at Concord, with the papers read at that time and a list of the Fellows of the Society.

DYSPEPTIQUES ET OBESE DU VENTRE.

By Dr. Zabe.

The author in a short essay under the above title gives us a highly practical contribution on various obscure and unusual types of ventral hernia.

The symptomatology is set forth with singular clearness, and the differential features, which separate

these from other lesions found in those zones, are well worthy of careful study.

Many varieties of the most severe type of dyspepsia, our author declares, are attributable to intervisceral adhesions, and not infrequently to small, overlooked hernial protrusions.

The therapeutical conclusions are conservative and rational. The title is somewhat misleading, for there is nothing at all said of abdominal obesity proper.

BOOKS AND PAMPHLETS RECEIVED.

THE DISEASE OF INEBRIETY. By Edward C. Mann, M. D., New York City. Reprinted from the Journal of the American Medical Association, December 1 to December 29, 1894.

THE GIBBES-SHURLY METHOD OF TREATING CONSUMPTION. By Stiles Kennedy, M. D., St. Louis, Mich. Reprinted from the American Lancet, December, 1894.

THREE CASES OF UTERUS BICORNIS SEPTUS; WITH REPORT OF OPERATIONS PERFORMED UPON THEM. By George M. Edebohls, A. M., M. D., New York. Reprint, January 16, 1894.

A NEW METHOD FOR ANCHORING THE KIDNEY. By R. Harvey Reed, M. D., Columbus, O. Reprinted from the Journal of the American Medical Association, December 22, 1894.

THE DIAGNOSIS AND TREATMENT OF "FLOATING KIDNEY." By R. Harvey Reed, M. D. (University of Pennsylvania), Columbus, O. Reprint from Columbus Medical Journal.

THE TECHNIQUE OF VAGINAL HYSTERECTOMY. By George M. Edenbohls, A. M., M. D. Reprint from the American Journal of the Medical Sciences, January, 1895.

NOTES ON MOVABLE KIDNEY AND NEPHRORRHAPHY. By George M. Edebohls, A. M., M. D., New York. Reprinted from the American Journal of Obstetrics, February, 1895.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

SUPPURATION IN SIMPLE FRACTURE.

Krecke (*Munchener Med. Wochenschrift*, 1894, No. 35) cites various instances, of simple fracture, non-complicated, which presented the phenomena of suppuration in their evolution, always consecutive to an infection of the organism.

In three cases he found that his patient either had an infected wound, disease of the lungs or intestinal tract. He believed that in those cases the local infection succeeded through the circulation, the injured part presenting an enfeebled vitality and offering the least resistance.

CANCER OF THE BODY OF THE UTERUS.

Godart (*Bull. de la Soc. Belge de Gynec et d'Obstet.*, No. 1, 1895) relates two cases in which Jacobs removed the uterus for this disease. Both patients recovered from the operation, the first taking place on February 7, 1894, the second on October 3. In both cases the patients had borne several children, and had frequently miscarried. One was 29 years old, the other 40. Menorrhagia occurred in both. Primary cancer of the body of the uterus was until recently held to be very rare. Now that the microscope is freely used, so that gynecologists understand the normal and morbid histology of the uterine tissues, the disease in question is not rarely detected. Godart makes the important observation that the curette is not a sure instrument for diagnosis. The scrapings in the above cases only displayed the appearances seen in chronic endometritis, with alterations in the glands. Diagnosis can only be made if tissue belonging to the muscular wall is scraped away. The presence of columns of epithelial cells in the muscular coat, the nuclei undergoing division, is the most distinctive appearance in cancer of the body of the uterus.

AN EXPERIMENTAL RESEARCH ON THE PHYSIOLOGICAL IMPERMEABILITY OF THE HEALTHY EPITHELIUM OF THE BLADDER.

By MM. J. Bozior and L. Guinard,
Lyons, France.

These authors have made an extended series of experiments with a view of ascertaining the degree of absorptive power, if any, possessed by the mucosa of the healthy bladder. As their contribution is technical and deals with the subject with fullness and detail, we can afford space here only for an abstract of a few of its most valuable features.

They commence by telling us that a common impression prevails that the bladder possesses no power of absorption, which they admit as correct in a general way, but not without reserve.

In the bladder wall we have not only the simple layer of flat epithelia, but also superadded two more strata of the cuboidal variety, thick and so densely packed together that it is clear how impermeable they are to any description of foreign elements. The bladder is the reservoir of the urine, the latter containing various elements in solution. The vesical mucous membrane resists the passage of these into the circulation, though it is generally agreed that some of the aqueous elements of the urine may be reabsorbed.

It is generally conceded that when a formidable barrier stands in the way of the urinary discharge, then, after the vesical walls have undergone extreme distension and the urine has changed in quality, we may have a resorption of any of its toxic elements, as was taught by Gabler.

This our authors proved to be true, both by anatomical and physiological investigation in the course of their research.

Strychnia, atropine, eserine, etc., from 2 to 10 centigrammes, are fatal to a dog, or even much less when injected hypodermically; but these quantities may be introduced into the bladder and retained there as much as 12 hours with impunity.

Urin itself in small quantities injected into the healthy tissues of the animal give rise to toxic symptoms.

All are not agreed on the question of the non-permeability of the bladder epithelia. Bazy and Sabitier affirm that it possesses more power in absorption than the upper part of the esophagus or the connective tissues. Tricimi, for instance, noted that three minutes after the injection of cocaine all its poisonous manifestations were present, while such eminent authorities as Kuss, Susini, Bert, Alling, Cazeneuve, Lepine and Guyon affirm that the healthy bladder has the property of retaining poison without permitting it to enter the organism. MM. Boyer and Guinard experimented on the bladders of twenty-three dogs, with a view of attempting to decide this question of vesical absorption or non-absorption.

Their method of proceeding was to first open the abdomen, close the bladder by a ligature and then, with a fine perforated needle, inject toxic solutions into its cavity. In the first instance, a two per cent. solution of strychnine, 4 centigrammes of the poison were injected. The solution was borne for six hours without the least disturbance. It was now drawn off with the catheter, and one centigramme was injected under the skin, when, after 12 minutes, the animal was dead. A similar experiment with arsenite of strychnia was employed, 5 centigrammes being used. In this instance mortal effects followed.

In a general way it was found that epithelia of the bladder resisted all the vegetable poisons when introduced, well diluted, and very gradually, while when any of the corrosive poisons were injected suddenly, and particularly in a concentrated form, violent irritation succeeded, with destruction of the outer squamous layer of epithelia, and prompt absorption followed.

It was noted by these observers that when the constriction at the neck of the bladder was released, urine, impregnated with a lethal element, promptly provoked symptoms

through rapid absorption by the urethral mucous membrane; this structure apparently taking up such elements with marked avidity as compared with the lining of the bladder.

Archives de Medicine, Experimentale et d'Anatomie-Pathologique, 1st November, '95.

(Note by translator).

There can be no doubt but under ordinary circumstances the vesical epithelia offer a great resistance to the introduction of toxic agents from without, yet it is well known that there are several things which in their elimination by the kidney provoke a most intense inflammatory reaction through their absorption.

It has long been a matter of common observation with hospital surgeons that, regardless of what aseptic precautions are taken, the mere presence of the catheter in the healthy bladder will often give rise to a most painful cystitis.

The mucosa of the bladder absorbs with great rapidity nearly every description of soluble medicament, when in an inflamed or diseased state. The flat epithelia are so dried, hardened and contracted as to enlarge the stomata in their interstices, and thus permit a greater degree of permeation of fluids, which soon pass through the capillary walls into the general circulation. But this is pathological, and does not strictly come within the scope of the review to hand.

T. H. M.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

TORTICOLLIS AND LUMBAGO OF ARTICULAR AND RHEUMATIC ORIGIN. ROBIN & LONDE.

These observers have come to the conclusion that what we commonly call wry neck, and lumbago, is not in most cases a muscular affection, but rather an articular disease, more or less marked by contraction of the muscles by which the patient endeavors to immobilize the affected joints.

The contracted muscle may itself

become painful from the prolonged tension. Although the exact localization may be obscure, yet the maximum of pain can generally be found at the junction of the articulations, the muscular contraction being reactionary and secondary; treatment directed to the articulations is also more successful than that directed to the painful muscles.

Treatment is by drugs and by massage. The authors have found jaborandi very successful in treating these affections, being only contraindicated, where pneumonia or valvular disease is coincident. They give 4 grains of the leaves in an infusion prepared by macerating the leaves in 10 grains of alcohol for 8 to 12 hours, then adding 150 grains of boiling water.

The infusion should be taken fasting—the sweating begins in about half an hour. Relief sometimes occurs the same day, but generally on the day following the administration of the dose.

If more than one dose is required it is best to give it in alternate drops—the patient must of course keep to his room. Chronic lumbago sometimes yields quite readily to this treatment. Where it fails massage should be tried, providing the inflammatory stage has passed.

The massage should be applied over the painful joints.—Rev. Med.

A NEW HYPODERMIC NEEDLE.

A new hypodermic syringe is described in the *Annales d'Orthopedie*, consisting of a metallic syringe body, provided with a hypodermic needle, and with a cap which carries the piston rod.

The injection is contained in a sterilized tube, fitting into the metallic body; this tube is drawn out and sealed hermetically at one end, and the other is sealed by a paraffined hard rubber button. When used the tube is inserted into the syringe body, the cap is screwed on and the rod pushed down on the button, which takes the place of a piston; the drawn out end of the glass tube is broken off by a file cut, the needle screwed on and the syringe is com-

plete and ready for the injection to be made.

The advantage is that the injection and syringe are always sterile, since the glass part of the apparatus is only used once.

CONNECTION BETWEEN TUBERCULOSIS AND DIPHTHERIA.

REVILLIOD.

The author has noted that to a certain extent diphtheria, like tuberculosis, is an inherited or family disease, and has cited cases in support of his views—among others, 24 families, where a special predisposition to the disease seemed to exist.

Tur says that contagion, in cases observed in Basle, did not seem to play a primary part, and the same seemed to be the case in the expansion of the disease at Geneva and other places. Revilliod has established by facts the following proposition, "a disposition to diphtheria and tuberculosis frequently co-existing in the same family." Also the same as regards scrofula.

Carrasso recommends oil of pepperment in treatment of pulmonary tuberculosis. Its antiseptic powers are marked, and if it is combined with creasote, given by the mouth, it has proved very successful.

FERRIPYRINE—A NEW HEMOSTATIC.

Ferripyrine is a double combination of perchloride of iron and antipyrine, whose formula is $\text{Fe Cl}_3 (\text{C}_{11}\text{H}_{12}\text{N}_2\text{O})$. It is a fine powder of reddish orange color, soluble in cold water. Employed externally in solution of 18 to 20 per cent. by means of pledgets of cotton applied to the seat of hemorrhage. It may also be used in powder. Ferripyrine, unlike perchloride of iron, is not caustic, even after prolonged contact with structures like the nasal mucous membrane.—Rev. de Therap.

DISINFECTION OF THE INTESTINAL CANAL—ITS INFLUENCE ON THE PROGRESS OF TYPHOID FEVER.

Dr. Hiller recommends the cresols for this purpose. These are dissolved in a fatty oil, and the solution is

incorporated in capsules. The solution forms with the intestinal contents an emulsion endowed with energetic disinfecting properties and quite innocuous.

SULPHATE OF COPPER IN TERTIARY SYPHILIS.

Sulphate of copper is recommended by Santi as a treatment of tertiary pharyngeal ulcerations of a syphilitic nature. It is used in solution of 4 per cent. locally, and specific treatment is also employed. The applications are repeated once every day. The patient uses a bone gargle in the intervals.

THE CAUSE OF THE UREMIC COMA.

Dr. Benj. Ward Richardson in the *Asclepiad*, No. 42, Vol. 2.

What is the cause of coma in these cases? That is a point to which I particularly wish to direct attention. The views which have been held in regard to coma in uremia have been two in character; one, that the coma is the direct action of urea circulating in the blood; the other, that the urea circulating in the blood is decomposed, and, as Frerichs first suggested, is transformed into carbonate of ammonia. In 1861 I made a long series of researches on this matter, and the conclusion I came to was that the theory of Frerichs, much as I admired his great ability, of the urea being decomposed into carbonate of ammonia, and the carbonate of ammonia being the cause of the symptoms, was not clearly demonstrated. I discovered that carbonate of ammonia, although it may be poisonous to the body, produces symptoms dissimilar to those which are present in uremic coma. Frerichs assumed that in uremic coma ammonia can always be detected in the breath. In this respect he was partly right. I found sometimes that ammonia was distinctly evolved by the breath, owing, doubtless, to an excess of ammonia in the blood; but in other instances of uremia no such phenomenon was observable; indeed, it was sometimes surprising to find entire freedom from ammonia in the breath-vapor. Dr. Hammond, of

Philadelphia, took the same view as myself, and I think, practically, we may say that ammonia, as a narcotic poison, is not properly assignable as the cause of uremia; if it were, the blood would be far more rapidly disorganized than it is, for although persons with uremic symptoms sometimes go on for many hours with changes in the blood which are of themselves distinct, they are not such changes as arise from the direct action of ammonia itself—solution of the red blood corpuscles and extreme fluidity. The action of urea as a poison seems to me to indicate the most distinct kind of poisoning in cases similar to the two first which I have noticed. It is also worthy of observation from my experiments that urea largely diluted acts as effectively as when it is more condensed, so that we may assume that the presence of urea, as urea, in the blood is really and truly the cause of the coma. I found by experiment that in the lower animals coma could be produced by urea itself in the most distinctive manner, together with the convulsive movements which commonly attend it.

But the point to which I wish to direct attention most particularly in this paper is the effect of water in the production of comatose symptoms in the body. In the last case to which I referred, where the patient lived for so many months, it was always said of him that he was suffering from uremic symptoms. It was a point whether that was the case; if it had been, if there had been an excess of urea in his body at the time, I do not think it possible he could have lived for so long a period; it must have been, as a matter of course, that a certain amount of urea was secreted, but was distributed so widely over the tissues, and was so much diluted, it was not the direct cause of death, as in uremia proper. It was to some extent an aid to the cause of death, but the universal dropsy, relievable by the process of drawing off the fluid that had been excreted into the cavities, was the chief cause. The symptoms which this man presented resembled, in fact, very closely those which are

producible by the introduction of water in large quantities into the bodies of inferior animals. I found by experiment that an amount of water equal to a fifth part of the weight of an animal could be introduced into the body without development of pain, or any symptom of a fatal character; but if over one-fifth of the weight of the body of an animal were introduced, fatal results would follow, and when such results did appear, they were always in the character of coma. An animal charged with water to this extent, one-fifth part of its own weight, would wake up at intervals just as our patient did, walk as he did with a drowsy tottering gait, but soon lie down again and sleep on. The continuance of life, if the complete surcharge of water was maintained in the body, was usually about 12 hours, the death occurring as in the most painless and gentle sleep. If the amount of water injected were less in weight than a fifth of the body of the animal, the symptoms were identical in character with those that have been described in the dropsical patient, and it is worthy of notice, too, that the urine under those circumstances carried, intermittently, albumen in its course. The effect that was produced upon the body was the effect of debility induced by the dilution of the blood and the feebleness of muscle incident to the diffusion. To this also must be added the effect which these surcharges of fluid had upon the brain. The brain cavity was always surcharged with fluid, and upon the pressure that arose from this surcharge depended, I think, undoubtedly, the coma which was produced. When water is introduced into the blood in excess the effect of it is that it causes effusion of a direct kind into the cerebro-spinal cavity, and then occurs that change (described in the first number of the *Asclepiad*), brought about through the simple pressure of the cerebro-spinal fluid. The pressure of the cerebro-spinal fluid produces coma, very distinct in character, but when the pressure is taken off from the body at large the brain is relieved, and consciousness returns.

Practical Summary.—The practical points most deserving of notice from these observations, whether the theory of notice from these observations, whether the theory advanced be accepted or not, are briefly as follows:

In diseases of the kidney leading to suppression of urine there are three classes of cases. (1). Cases in which there is acute uremic coma occurring suddenly without dropsical exudation, in which the coma is deep, the breathing stertorous, the muscles restless or convulsed, and the eyeballs moving from side to side or upwards and downwards, or obliquely; symptoms the same as those which can be synthetically induced by the introduction of urea into a healthy organism. (2). Cases in which coma appears with dropsical symptoms, edema, ascites, or pleuritic effusion. (3). Cases in which, with universal dropsy, there are comatose conditions not amounting to deep coma, but in which the drawing off of fluid from the cavities of the chest or abdomen, or from the cellular tissue, relieves by its escape, with removal of coma, and, for a time, a new lease to life.

The first of these classes depends, it may be fairly assumed, on diffusion of urea, in a comparatively concentrate form, through the system, so that the true toxic action of the salt is acutely developed. The second seems to depend on free diffusion of urea through the system, but with a considerable amount of watery fluid, serum. The third appears to be a widely-spread dropsy, in which urea, if it be accumulated at all, is so extremely attenuated with water that its toxic effects are not manifested, but the pressure produced by the effused serum tells upon the central nervous system and gives rise to the semi-comatose condition. Where these symptoms are prolonged cases are commonly registered as those of chronic dropsy.

"Has Bilkens' sight been completely restored?"

"The doctor thought so until he presented his bill, when he couldn't make Bilkens see that it was worth \$200."—Chicago Inter-Ocean.

Ophthalmology.

DR. J. A. TENNEY, Boston, Mass.

COLLABORATOR.

THE STELLATE ARRANGEMENT OF SPOTS IN THE MACULA EXPLAINED.

Mr. Gunn, of London, read a paper before the International Congress of Ophthalmology in Edinburgh last summer, in which he explained the vulnerability of the yellow spot as being due to its high physiological activity, and to the fact that its circulation is terminal.

He thinks this region is especially liable to edema because of the peculiarity of its circulation, and because of the retina being thicker at this point; consequently the interstices between its elements are wider, especially in Henle's fibre layer.

Mr. Gunn soaked eyes in a solution of chloral years ago, afterward placing them in weak spirit, when he found the region of the macula swollen, and folds were seen running toward the optic nerve. He inferred that there was a constant relation between these folds and swelling of the retinal tissue.

He regards the retina in this locality, between its two limiting membranes, as being practically homogeneous; and its swelling would take place not only vertically, but also in its extension. If the edema occurred slowly, it would fade into the surrounding retina; but if the effusion occurred suddenly, we might expect to find a well-defined circular edge around the affected area.

The effusion finds itself arrested at the fovea; and if the cone outer-segments were not firmly grasped by the pigment epithelium, there would be detachment. This fastening at the fovea would be likely to cause folds in the retina. He thinks this tendency would be increased by the convergence of the blood-vessels of the retina toward the fovea.

He considers that these creases or folds determine the course of degenerative changes in the retina; for where the tissue is crumpled its vitality is necessarily lowered. Edema

is liable to occur in renal disease, and the degeneration attending retinitis albuminurica is known to be stellar-shaped, in accordance with this theory. When the stellate figure is associated with neuro-retinitis there is usually cerebral tumor present.

On one occasion he saw the same stellate figure in a case of partial embolism or thrombosis of the central artery of the retina. This case was especially interesting because it allowed the early observation of the macular spots. He saw the case the day after the loss of vision occurred, and found a great deal of retinal edema, which extended to the margin of the disc. Within the next fortnight the fovea became very dark, and was immediately surrounded by two or three small concentric circles, and the glistening white spots were at last well marked in the macular region.

The hypothesis that the stellate arrangement of the spots about the macula in retinitis albuminurica is due to the radiate Muellerian fibres in this locality is rejected by Mr. Gunn, first, because it is not corroborated by the normal anatomy, and, second, because the changes do not take place in the Muellerian fibres, but in the outer and inner layers of granules.

RIPENING CATARACTS ARTIFICIALLY.

Dr. W. C. Pipino, of Des Moines, Ia., reports seven cases in the Medical Record, in which he has practiced Bettman's method of maturing cataracts, with very satisfactory results.

In one instance an old gentleman had groped his way around for several years, being told that he must wait for the cataracts to ripen. In each eye was to be seen a small opaque nucleus, but around this the fundus was clearly visible.

The nature of the ripening process being explained to the patient, he readily submitted to it. Four weeks after simple extraction was performed, followed by good vision.

Some of his patients were so well satisfied with one eye that they re-

fused to have an operation on the other. In no case did iritis occur, it being guarded against by the use of atropine.

Dr. Pipino waits from four to five weeks after practicing the ripening process before attempting extraction.

Dr. Bettman's method consists in making an incision through the corneal margin with a keratome, and then passing through this opening the proper instrument, with which he makes light pressure directly upon the lens, rubbing it up and down, and from side to side. From six to twelve times with the spatula is sufficient.

INCREASED OCULAR TENSION.

Teale says in the *Lancet*, that when irido-cyclitis or panophthalmitis follows the operation for secondary cataract, it is because the operation has caused an increase of tension; and if this is relieved, the disease will be cut short.

He cites two cases in which the patient had intense pain within 48 hours after the operation, with increased tension. In both of these cases he made punctures with a broad needle through the upper part of the cornea, through the iris, and into the vitreous body. The needle was turned so as to allow some of the vitreous humor to escape. In fifteen minutes the patient was perfectly easy, and recovered perfectly.

Obstetrics and Gynecology.

THE TREATMENT OF UTERINE FIBROIDS.

Obalinsky (Wiener Klinik, December, 1894) maintains that the course of fibroid uterine disease, when seen in its earlier stages, cannot be determined in individual cases, and, as bad results may suddenly be manifested in instances where the disease appears to be all but latent, operative measures are called for sooner than is generally advised. Enucleation is by far the best plan, whether practiced through the vag-

ina or through the abdominal wall. The object, which Obalinsky declares may be obtained in two-thirds of the cases of fibroid, is to remove the tumor and yet spare the organs of generation. He particularly advises that when the tumor is enucleated through the abdominal walls the uterine and parietal walls be united. In seven of his own operations this practice was carried out, all recovering without complications. Out of eight cases where the uterine wound was sutured separately, and the uterus dropped back into the peritoneal cavity, four died. From further experience of numerous cases in his own wards, treated in various manners, Obalinsky is tempted to place yet firmer reliance in the union of the uterine and parietal wounds. He looks with little favor on vaginal or abdominal hysterectomy, though he admits that the uterus must occasionally be sacrificed; and he considers that decortication and removal of the appendages are operations rarely justifiable.

MENSTRUATION IN A CHILD.

G. E. Rein (*Vratch*, No. 44, 1894), showed at the Kieff Obstetrical and Gynecological Society a girl aged 6, who had commenced to menstruate regularly about a twelvemonth previously. The catamenia recurred every three or four weeks, and lasted on each occasion from four to ten days. The breasts, external genitals and pubic hairgrowth resembled those of a girl 13 or 14 years old. The abdomen proved to be considerably enlarged, the circumference amounting to 85 centimetres. The examination revealed the presence of a fluctuating thick-walled ovarian cyst.

PROFESSOR LOOMIS.

He has been a great figure in New York. He was an exceedingly sagacious physician, wrote very well on medical subjects, lectured with extraordinary force, and was willing to learn even to the day of his death. These were rare combinations, seldom to be found together in one practitioner and teacher.—Post Graduate.

Therapeutics.

DR. LOUIS LEWIS, Philadelphia.
COLLABORATOR.

TRIONAL.

Claus (Internat. klin. Rundschau, 1894, No. 45) speaks of the value of trional in the sleeplessness of children. It is mostly to be avoided in the insomnia of organic nervous disease, such as meningitis, etc. It is especially useful in chorea, convulsions, and the pavor nocturnus. In a case of chorea reported by the author with marked sleeplessness, it had the best effect. Pavor nocturnus is a condition in which the child suddenly wakes up terrified and often cannot sleep again. A case of this kind is related where trional was used with success. In one case the child showed some ataxia on the following morning, probably due to too large a dose of the drug. Trional is of little service when the sleeplessness is caused by pain. The doses used by the author of 0.2 to 0.4 g. for infants from 1 month to 1 year, increased up to 1.2 to 1.5 g. for children from 6 to 10 years. In the insomnia due to toxic influences chloral is more effective.

THE BERLIN DEBATE ON THE DIPHTHERIA ANTITOXIN.

To sum up the whole debate, the feeling generally was that the time has not yet come to pronounce a final judgment on this important question, as it could not be clearly proved that the lowering of mortality was due to the treatment or to the milder character of this year's cases. But all were agreed that the complications reported by Dr. Hansemann as following upon the treatment were of no importance, and that no patient had come to any harm by the injections. It was a subject of general remark that none of Professor Koch's or Behring's assistants said a word in the debate.—Lancet.

A NEW METHOD FOR THE TREATMENT OF WOUNDS.

We have had the opportunity,

says the Medical Press, of studying the new treatment of wounds devised by Dr. George Stoker, and we find it to start from the original idea of using the stimulating effects of oxygen on a granulating surface; the *prima facie* idea not being one of antisepticism. The method consists in keeping the part of the limb on which the wound or ulcer is present in an air-tight wooden box, the upper part of which is glass, and which, at the extremity where the limb enters, is closed by an India-rubber funnel fitting to the limb and kept in situ by a turn of a Martin's bandage. To this box are connected three India-rubber tubes about three-sixteenths of an inch in diameter. Through the first, the attendant at stated intervals pumps in warm air by a plan closely resembling that used in a Higginson syringe, the warm air, however, passing through two bottles, one containing Condyl's fluid and the other lime water, while in a glass portion of the tube itself it traverses menthol and medicated wool. Through the second tube the oxygen is carried in. The third tube is utilized to carry off any impure air into a bottle of Condyl's fluid. The treatment is commenced by pumping in the warm air for about three minutes; this is done first, as it is found that the pure oxygen is too stimulating. Next the oxygen is turned on, and this is continued at a very low pressure, and not even shut off when the warm air is pumped in again at intervals of a quarter of an hour; pain, which is increased by dryness, is relieved by this method. The ulcerating surface is dressed twice a day with dilute warm boracic solution, with which it is gently syringed and the scabs removed, the box, of course, being taken away during the dressing. The treatment necessitates the constant attention of a nurse, who has to a certain extent to be specially trained. The cost is about one farthing per hour, but this probably, Dr. Stoker asserts, could be considerably reduced. Through the courtesy of Dr. Stoker we were enabled to see a patient under treatment; the subject certainly was not a favorable one. The ulceration,

which was probably specific, half encircled the right leg of a middle-aged woman, rather stout, and suffering in addition from chronic eczema and heart disease; the ulceration had been treated for a considerable period in the ordinary manner, but without success. Under the new treatment the ulcerating surface looked clean, the granulations were healthy, and Dr. Stoker hopes soon to see it entirely healed.

NEW REMEDIES.

Among the new remedies announced in the *Therapeut. Bl.*, the first named is neurodine, acetyl-p-oxyphenyburethan, a colorless and odorless crystal, scarcely soluble in cold, but readily so in boiling, water. According to the investigations of V. Mering neurodine possesses no toxic properties, but it is an antipyretic. After 0.5 grain neurodine per dose per day, the temperature sank 2.5 deg. to 3 deg. C. gradually, often with free perspiration. The lowest point was reached in from three to four hours; the temperature then gradually rose. Neither cyanosis, vomiting, nor symptoms of collapse were observed after its use. As an antineuralgic it may be used with success in doses of from 1 gm. to 11.2 gm. Thermodyne, acetyl-p-aethoxy-phenylurethan comes next in the list, also an odorless crystal, with difficulty soluble in cold water, and only slightly soluble in hot. According to V. Mering it is an excellent antipyretic. With doses of 0.5 of thermodyne the temperature sank 2.5 deg. to 3 deg. C. It was found serviceable in influenza, the temperature fell, the headache and pains in the limbs disappeared. Generally speaking, the dose is 0.5 to 0.7 gm. It also possesses antineuralgic properties, but in this respect is inferior to neurodine. Lycetol, dimethylpiperazine is a third. According to Wiltzack we possess in lycetol a tolerably inexpensive remedy, that appears to be at least as useful in the treatment of the uric acid diathesis as piperazine. After the employment of lycetol Wiltzack observed: 1. A considerable increase of diuresis with diminished specific

gravity of the urine. 2. The medicine was well borne without any disturbance of the general system, even when its use was continued for a lengthened period. 3. Cessation of the symptoms in gout, non-occurrence of an otherwise regularly recurring typical gouty attack, and considerable diminution of gravel when the medicine was persevered with.

Philosophy.

DR. HENRY BURCHARD, Philadelphia.
COLLABORATOR.

"The superior man," says Mencius (p. 335), "desires extensive territory and numerous subjects, yet his enjoyment consists in this, to stand in the midst of the realm and to ensure the stability of the people within the four seas, but that which is to him his nature consists not therein. The occupying of himself in great matters (as emperor) adds nothing to that which is the real nature of the superior man, and his continuing in poverty (as a beggar) detracts in no wise from it, for his portion is fixed. That which the superior man regards as his nature is benevolence, righteousness, propriety and intelligence. Their root is in the heart; their manifestation is a peaceful expression of the countenance, a fullness of contour in the back and a something imparted to the four limbs which make it known without words."—Mencius.

Come, then, to that which is above seeming. What is this? Behold, the beginning of philosophy is the observation of how men contradict each other, and the search whence cometh this contradiction, and the censure and mistrust of bare opinion. And it is an inquiry into that which seems, and discovery of a certain rule, even as we have found a balance for weights, and a plumb line for straight and crooked. This is the beginning of philosophy. Are all things right to all to whom they seem so? But how can contradictory things be right?—"Nay, then, not all things—but those that seem to us right."—Epictetus.

The will of Nature is to be learned from matters which do not concern ourselves. Thus, when a boy may break the cup of another man, we are ready to say, it is a common chance. Know, then, that when thine own is broken it behooves thee to be as though it were another man's. And apply this even to greater things. Has another man's child died, or his wife? Who is there that will not say, It is the lot of humanity? But when his own may die, then straightway it is, Alas, wretched that I am! But we should bethink ourselves what we felt on hearing of others in the same plight.—Epictetus.

Of all our faculties ye shall find but one that can contemplate itself, or, therefore, approve or disapprove itself. How far hath grammar the power of contemplation? Only so far as to judge concerning letters. And music? Only so far as to judge melodies. Doth any of them, then, contemplate itself? Not one. But when you have need to write to your friend grammar will tell you how to write; but, whether to write or not, grammar will not tell. And so with the musical art in the case of melodies; but whether it is now meet or not to sing or play, music will not tell. What, then, will tell it? That faculty which both contemplates itself and all other things. And what is this? It is the faculty of Reason; for we have received none other which can consider itself—what it is and what it can and what it is worth—and all the other faculties as well. For what else is it that tells us that a golden thing is beautiful since itself doth not? Clearly it is the faculty which makes use of appearances. What else is it that judges of music and grammar, and the other faculties, and proves their uses, and shows the fit occasions? None else than this.—Epictetus.

ATHEISM.

I had rather believe all the Fables in the Legend, and the Talmud, and the Alcoran, than that this universal Frame is without a Minde. And

therefore, God never wrought miracle to convince Atheisme, because his Ordinary Works convince it. It is true, that a little Philosophy inclineth Man's Minde to Atheisme; but depth in Philosophy bringeth Men's Mindes about to Religion: For while the Minde of Man looketh upon Second Causes Scattered, it may sometimes rest in them, and go no further. But when it beholdeth the Chaine of them, Confederate and Linked together, it must needs flie Providence and Deitie. Nay, even that Schoole which is most accused of Atheisme, doth most demonstrate Religion. That is, the Schoole of Leucippus, and Democritus, and Epicurus. For it is a thousand times more Credible that foure Mutable Elements and one immutable Fift Essence, duly and Eternally placed, need no God; then that an Army, of infinite small Portions, or Seedes unplaced, should have produced this Order, and Beauty, without a Divine Marshall.—Bacon.

Miscellany.

SEWAGE MICRO-ORGANISMS.

A very important investigation has recently been made by Mr. Parry Laws and Dr. Andrews, at the instance of the London County Council, on the bacteriology of sewage. In their report these gentlemen state that their investigations showed that if the organisms existing in sewer air were derived from those existing in sewage the bacteria of sewer air should bear a close resemblance to the bacteria of sewage. On contrasting the prevailing organisms of sewage with those of sewer air they were found to bear no resemblance whatever to one another; indeed, so far as the investigators were aware, not a single colony of any of the organisms found to predominate in sewage had so far been isolated from sewer air. Attention was also specially directed to the possible occurrence of the typhoid fever bacillus and the diphtheria ba-

cillus in ordinary London sewage. Therefore every colony which seemed likely to belong to either of these species was the subject of careful investigation. No evidence, however, of their occurrence in ordinary sewage was found. The mathematical chances of detecting those organisms in ordinary sewage were exceedingly minute, unless they were capable of vigorous growth and multiplication. Recalling this fact search was made for the typhoid bacillus in sewers where it might be expected to exist in much larger proportion. On examining sewage taken from the sewer draining the fever block at the Eastern Hospital, after disinfection had been discontinued for a short period, the existence of the typhoid bacillus was satisfactorily shown—an important fact which had not hitherto been demonstrated. A series of experiments were also made to determine the fate of the typhoid bacillus in sewage, in order to verify or disprove the statement made by many writers that disease germs, such as the typhoid bacillus, found in sewage a suitable soil for their growth and multiplication. On careful investigation it had been found that the bacillus of typhoid fever was not only incapable of any growth and multiplication in sewage, but that after the first 24 hours it slowly and surely died out, its ultimate death under natural conditions being a matter of a few days, or at most one or two weeks. If the organisms which existed in overwhelming numbers in sewage did not exist in sewer air, how indefinitely remote was the possibility of the existence of the typhoid fever bacillus in the air of the sewers? Sewage was without doubt a common medium for the dissemination of typhoid fever; sewage-polluted soil might give up germs to the subsoil air; but from the results of these investigations it appeared in the highest degree unlikely that the air of the sewers should play any part in the conveyance of typhoid fever. These results are very important, but it is quite possible that some of the conclusions may be modified after further investigation.—*London Med. Times*, Feb. 16, '95.

THE ANTI-TOXIN TREATMENT A FAILURE IN VIENNA.

Now that the glamor of novelty is passing away it is being found, as we feared would be the case, that the serum treatment of diphtheria is by no means the absolutely curative agent we were led to expect it to prove. At a recent meeting of the Medical Society of Vienna Professor Drasche presented a most unfavorable report as to its effects in 30 cases he had had under his observation. He found that the injections of the Behring antitoxin serum affected the kidneys, and this observation was corroborated by those of other doctors. In presence of that fact it could no longer be believed that the injection had no injurious effects. It could not be a matter of indifference that a patient who was recovering from a dangerous illness should be subjected through this remedy to a further serious malady. With regard to the statistics which were supposed to prove its success, Professor Drasche said that in diphtheria the bare figures were no evidence. He pointed out that, according to MM. Gottstein and Kossowitz, notwithstanding the use of the serum, the total mortality from diphtheria in Berlin and Vienna had not decreased. Clinical observation was the sole means by which a true judgment could be formed. In the 30 cases the progress of which he had followed, he had not met a single instance in which he could feel convinced that the treatment had produced a direct effect. The disease developed in an exactly similar manner in those patients who were treated with the serum as in those who were not. On the other hand there were many symptoms which warned medical men against its use.—*London Med. Times*, Feb. 16, '95.

HAVE A CHANGE.

Gladstone's wonderful vitality and endurance are attributed in great part to the extraordinary versatility of his occupations. It is not hard work that kills men, but the dead level of a single line of business or thought, that slowly paralyzes the worker.—*Sanitary Era*.

TREATMENT OF DIPHTHERIA.

L. G. Papkoff (Vratch, No. 44, 1894), of the Odessa City Hospital, draws attention to a method of treatment suggested by N. S. Ignatovsky. It consists chiefly in painting diphtherial areas with a mixture of kerosene (oz. i), turpentine oil (oz. i), and peppermint oil (dr. ii), the application being repeated every two hours, or even every hour or half hour. As adjuvants there are employed gargles of a 4 per cent. solution of boracic acid mixed with a few drops of mint tincture, sometimes steam inhalations of the same mixture, hot compresses to the neck, etc. The best results are obtained in catarrhal forms of faucial diphtheria, the percentage of recoveries amounting to 98. The deposits gradually disappear in five or six days, leaving no trace, and the general course of the disease remains mild. The method also proves "fairly successful" in gangrenous forms, though recovery takes place much more slowly. In septic forms the paintings are efficacious only in early cases—that is, when the treatment is commenced before the appearance of prostration and constitutional symptoms due to absorption of the virus. In advanced septic cases, as well as in croupous forms, the treatment fails to arrest the morbid process.

THE OFFSPRING OF YOUNG MOTHERS.

At the Congress of Hygiene Dr. Korosi, of Buda Pesth, stated that the proportion of deaths among children from weakly constitutions, or maladies traceable to the mother, was twice as large among the children of mothers under 20 as among the children of mothers over 30, upon a comparison of several thousand cases.—Sanitary Era.

Electricity says there is nothing theoretically improbable in the statement that an Ohio convict has invented a battery which converts sound into electric power by a device which "makes it possible to operate an ordinary call bell by simply clapping the hands in front of the battery."

TONICS.

- R—Hydrargyri bichloridi, gr. i-ii.
Liq. arsen. chloridi, dr. j.
Acid. hydrochlor. dil.,
Tinct. ferri chloridi, aa dr. ii.
Syrupi zingiberis, oz. ii.
Aqueae, ad oz. vi.
M. S. Dose, dr. ii td. after meals.
(Alterative tonic.)
—Goodell.
- R—Sod. et auri chlorid, gr. iii.
Strychninae sulphatis, gr. i.
Zinci phosphatis, gr. iii.
Ext. damianae, dr. j.
M. et ft. in capsul. no. xxx. S. One capsule td. (In impotence.)
- R—Strychninae sulphatis, gr. i.
Acid. hypophosph. dil., oz. j.
M. S. Dose, gtt. x td. before meals in a dram of fl. ext. of cocae. (Do not take it immediately before retiring; causes emissions.) (For sexual organs in impotence.)
—Hammond.
- R—Quininae sulphatis, gr. ii.
Acidi arseniosi, gr. 1-30.
Pulv. capsici, gr. j.
Extract. taraxaci, q. s.
M. S. To be taken before each meal.
(Malarial cachexia.)
—Palmar.
- R—Ext. damian. fluidi.
Tinct. cincho. co., aa oz. iv.
M. S. Dose, oz. ss td. (For procreative organs.)
- R—Ferri et quinidiae cit, dr. i.
Vini xerici, oz. ii.
M. S. Dose, dr. j.
- R—Tinct. ferri chloridi, dr. iii.
Acid. acetic diluti, oz. ss.
Liq. ammon. acetatis, oz. iiiss.
Curacaoe.
Syrupi simplicis, aa oz. j.
Aquam, ad oz. viii.
M. S. Dose, oz. ss after meals.
—William Goodell.
- R—Quininae sulphatis, gr. xxx.
Acidi sulph. dil., q. s.
Aqueae, oz. ii.
Tinct. ferri chlorid., oz. ss.
Spts. chloroformi, dr. vi.
Glycerinae, q. s. ad oz. iv.
M. S. Dose, dr. j.
—Loomis.
- R—Ferri et ammon. citratis.
Ammonii carbonatis, aa gr. xxxii.
Syrupi.
Aqueae anisi, aa oz. ii.
M. S. Dose, dr. j.
—J. Lewis Smith.
- R—Magnesii sulphatis, oz. ii.
Ferri sulphatis, gr. xxiv.
Acidi sulphurici dil., dr. ii.
Infusi calumbae, ad oz. viii.
M. S. Dose, oz. j every night. (Fergusonian aperient.)
—Farquharson.
(From Physicians' Vade Mecum.)

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Original.

HEREDITY IN INSANITY.

BY ROBERT H. CHASE, M. D.,
PHILADELPHIA.

The most common of all diseases is insanity; the most common cause of insanity is heredity. In no class of disease is the transmission of a predisposition to ill health more potent or more evident than in insanity. This fact renders this subject one of the most important in the range of medical science.

The reasons for this great phenomenon are not hard to find or difficult to understand. If the mental and physical traits were not transmissible then there would be an end to all training and all development. As one writer aptly puts it:

"If the child did not inherit the result of all that had gone before, with additional power of development on his own part, all social growth would be rendered impossible. The torch of civilization is handed from father to son, and, as with the idiosyncrasies of mind, so the very body itself exhibits well-defined marks of its parentage."

Thus it is undoubtedly that there is a great fundamental law of nature that the attributes of the parent descend to the child. This seems to be particularly true of the failings, the defects, the infirmities of the parent.

There have been opponents to this proposition, particularly as regards the hereditary character of insanity. Dr. Bucknill has thrown doubts upon the importance of inheritance and has said that if insanity be so easily transmitted from parent to child, how is it that so many in a family

escape? The reply to this argument sweeps it away entirely. First, it is a well-known fact that a new generation may escape entirely, or to a large extent, from the mental taint of their progenitors, but who can be certain that the taint is actually absent and not held in abeyance? Second, the study of hereditary transmission of various parental peculiarities shows that heredity is prone to select only certain individuals in a family; take, for example, the peculiarity of the presence of an extra finger or toe. This anomaly may run for many years in a family, selecting only a few individuals, or even one alone in a generation. Third, the more obscure fact in the law of heredity that a tendency may be transmitted from one generation to the third through a second generation which may show no development in the person transmitting it. One of the most beautiful illustrations which we have of this freak of nature is seen in hemophilia, where a daughter who is not a bleeder may transmit the tendency to bleed from her father to her son.

When we become better acquainted with this subject of heredity doubtless we will find that there are well-defined principles by which mental taint is transmitted; already we know that heredity in insanity follows, to a great extent, certain definite tendencies. In this manner insanity may be transmitted direct as far as kind goes, so that the hypochondriacal patient may have a hypochondriacal child, although frequently the inheritance may be altered in form, as a maniacal parent having a melancholic or epileptic child. Another proneness of inheritance seems to be the transmission of

* Read before the Philadelphia County Medical Society, January 23, 1895.

the tendency to take on disease under similar conditions, such as age or childbirth. Thus one family inheritance is a tendency to pass into a state of weakmindedness with melancholy at a certain period of life. Likewise instances are recorded in which mother and daughter have suffered from puerperal insanity.

In taking up the subject of heredity in insanity in as scientific a manner as our present data will allow it is well to define exactly what we mean by the term. By heredity, in mental pathology, we mean an original predisposition to mental alienation transmitted to children from their parents.

This definition becomes necessary when we come to study the frequency of the transmission of insanity, for different observers vary in their figures, due, we will find, largely to their variance in definition of heredity. For example, Marce claims that we find some antecedent in nine-tenths of all cases; Esquirol, on the other hand, found this predisposing cause in one-fourth of 1375 patients whose histories he examined. Figures of other observers vary between these extremes, due undoubtedly to the latitude allowed by the different observers in their search for previous cases of insanity in the families of the patients so afflicted. Those observers whose percentage runs very high have included almost any connection by blood, while those whose percentage is lower have limited their examinations to direct ancestors, as parents, grandparents, and great-grandparents. In this dispute the medium course in estimating the number of patients whose insanity is due to inheritance is the safer one. On examining the figures of all the various observers, it is a modest estimate to say that the figures vary between 40 and 60 per cent.

There is a nomenclature in the study of this subject which it is necessary to comprehend to follow it intelligently. Heredity, when it is attributed to parents, is immediate; when it is traced from grandparents, having skipped the parents, it is then mediate heredity. When it has existed for many prior generations it is

called cumulative heredity. It may be on the side of both parents, in which case it is called double, or from convergent factors. When it is from one parent it is simple heredity, either paternal or maternal. According to Esquirol, the latter is the more serious form of the two; it is also three times more common.

When hereditary insanity appears in the child at the time that it appeared in the parent it is called homochronous. When it appears in children before it is seen in the parent it is called anticipatory. When the hereditary taint reveals itself by a mental disorder identical with that of the parent it is called homologous; when it is modified in passing from one generation to another it is called dissimilar, or transformed. When it becomes more and more intensified by transmission it is said to be progressive; if it is alleviated by a series of fortunate crossings it is regressive.

The forms of mental alienation that are more predisposed to transmission are undoubtedly suicidal, reasoning, and the several forms of periodic insanity; while acute mania and melancholia compromise the family to a much less degree. In pursuance of this subject Dr. Regis' recent work is interesting. This observer has taken up the biological features of insane families and has developed the theory that heredity in mental alienation presents itself under three morbid types with clearly defined characteristics:

1. The neurotic, or neuropathic type, which originates in the neuroses and gives rise to neuroses and neuropathic insanities.

2. The cerebral or congestive type, originating in cerebral disorders and giving rise to cerebral affections, complicated, it may be, with insanity.

3. The vesanic type, originating in pure insanities, giving rise also to pure insanities, or vesania.

The special evolution of each of these hereditary types, according to this authority, permits to a certain extent the foretelling to what category of mental disorders the members of a family are particularly exposed.

Thus, for example, general paresis does not arise from insanity and does not engender insanity. Like the cerebral diseases, it is born of cerebral affections and gives rise to the same. It follows that general paralytics, not being descendants of the insane or producing the same, their children escape vesanic heredity, and if they are doomed to any special class of disease by reason of the general paralysis of a parent it is evidently not to insanity but to cerebral affections of all kinds. Although the biological study of the family history of the insane of these various types has but recently been touched upon by observers, yet this field is rapidly widening, and it is probable that the day is coming when it will be possible for a physician in cases of hereditary predisposition to formulate scientific rational opinions, not merely a response empirical, so to speak, made solely to reassure the interested parties.

The prognosis in hereditary predisposition in insanity is unfavorable as to permanent recovery; although it may render the likelihood of a primary recovery more probable, yet the possibility of a permanent cure is less probable. Curiously enough, some observers have claimed a higher percentage of recoveries in hereditary cases than in non-hereditary cases—in the table of the Crichton cases, where in a large number reported, the percentage of recoveries in hereditary cases was 36 per cent. to 32 per cent. in the non-hereditary. But the great mass of statistics exhibits the opposite result. Krafft-Ebing has demonstrated the fact that those cases of hereditary disease which were marked by sudden explosions of insanity the prognosis was favorable, while those which were characterized by a long incubation it was unfavorable. The Crichton cases happened probably to contain a large percentage of the former class. The great tendency of heredity insanity is to relapse. The diagnostic value of an hereditary tendency to insanity depends largely on its degree. Thus the insanity of one parent would indicate a less degree of predisposition than that of one parent and an uncle, or still less

than that of a parent and a grandparent, or of both parents. Again, the insanity of a parent and a grandparent with an uncle or an aunt in the same line may be held to indicate a stronger predisposition than even the insanity of both parents.

The significance of the insanity of parents will depend to a large extent upon the period of its onset. The insanity of a parent occurring after the birth of a child, if it arose from a cause adequate to excite it without previous predisposition, would be held, of course, as of no value in the formation of a hereditary tendency.

The insanity of relatives farther out than parents, uncles and aunts, brothers and sisters and first cousins, is not worth anything except in corroboration of nearer and weightier facts. But the influence of other related diseases to insanity occurring in those near akin, such as eccentricity, alcoholism, epilepsy, hysteria, hypochondriasis, vicious or criminal tendencies, etc., may be of great import.

It will thus be seen that the evidence of hereditary predisposition may be of such a character as to render insanity in a patient an event in the highest degree probable; or, on the other hand, it may be so weak as to add a scarcely appreciable amount of probability to the character of the disease.

The treatment of heredity in insanity is, after all, the most important because the most practical side of the question. Of course, the most decisive way to treat this subject would be to stamp it out by forbidding the marriage of persons so tainted, but, unfortunately, as in our syphilitic and tuberculous cases, this is impossible; so our efforts must be directed to preventing the appearance of insanity in such cases, or, if impossible, of ameliorating its condition when it appears. In children of such parents method, patience, persistent command of temper, self-denying industry and much knowledge of child nature are necessary. As to choice between home and school treatment, it is impossible to decide all cases off hand. Some do better at home,

some do better at school; few will do well at home, however, where it is impossible to be strict without being stern, or to carry out the necessary discipline without setting aside the claims of natural affection. The selection of the proper person to carry out these plans of discipline is by far the most important factor in the early history of the case.

Again, a sound mind needs a sound body; and exercise, food and raiment exert marked control over the health of these children. Their lives must be a happy medium between the Scylla of over-exertion, over-discipline, over-study and the Charbydis of the antithesis of these factors.

When the child has become the man, or at least when he comes to be his own master, then is the time of greatest trial. The physical and moral storm of puberty must be encountered, and great temptations have to be met with less guidance. When the outbreak is imminent the problem arises, should the youth or man continue or stop his regular occupation? This is a question which cannot be answered without a study of the individual case. In some instances it is better for the patient to do this; in some worse. The only general rule to follow is that if the calling is attended with anxieties which weigh upon the ailing mind, it should either be given up for a time or its burden should be lightened.

Should the threatened patient travel? This is an easy solution of the problem and an error often into which many physicians fall; it is so easy to order the patient away that it is adopted with more frequency than wisdom. Change of scene may do good, but constant change of scene with its labors, vexations and trials, especially in a foreign country, may do much harm. A threatened case of insanity should not be sent to travel without guarantee that proper care and efficient watch should be provided for him. Travel should include due provision for care and protection, the right admixture of rest and fatigue, change and repose. Under these circumstances it may be a very fair thing to try.

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THE PREVENTION OF CONSUMPTION.

At the present day, when so much is being said, both in lay papers and medical journals, concerning the contagiousness of tuberculosis, and the advisability of confining persons thus afflicted in hospitals set apart for their sole use, it may be well to note that this question is but the revival of a similar one promulgated many years ago. At that time certain rules were adopted in Italy intended to enforce the seclusion of consumptives, but, owing to their exclusiveness and absolute character, they failed to produce the effect intended.

Dr. B. W. Richardson, in the last Asclepiad, states that, although for many years a physician to a hospital for consumptives, he has never seen a case showing any ground for the theory of direct contagion in this disease. He also states that his colleague, the late Dr. Leared, who made the subject of contagiousness of consumption a special study, had practically similar experience.

While there is no ground for the theory that consumption is directly contagious, there are a few rules of considerable importance laid down by Dr. Richardson, that, if observed, so affect the human system, that the greatest results will be obtained toward the prevention of this disease.

Rule I.—Pure air for breathing is the first rule for the prevention of consumption.

This rule carries all others before it. No room called cosy, with the temperature at 70 degrees Fahr., with every crevice closed, and with an atmosphere in a dead calm and laden with impurities, should be permitted, either as a living-room or bed room. Every effort should be made in every household to ventilate freely the rooms in which people live and sleep. In every bed room there should be a fireplace, the chimney of which should always be open; the windows should be open during sunlight, and full circulation of air permitted. The greatest care requires to be taken that the room is free of dampness. If an indication is shown of dampness on the walls, glasses or furniture, it is a sign that the air of the room requires frequent fires. Precaution should likewise be taken that dust be not allowed to accumulate in the atmosphere of a room, and that all articles causing the gathering of dust and holding of dust, such as heavy curtains, picture frames and cornices, should be excluded. Carpets that hug the wall should always be avoided, and at least one foot of bare flooring, thoroughly varnished, should be present between the edge of the carpet and the wall. No room ought to play the double office of bed room and living room, and the bed room, in which a good third of the life is spent, should be the ariest, brightest and cleanliest in the house.

Rule II.—Active exercise, outdoor as much as possible, is essential for the prevention of consumption.

Out door life is one of the best preventives of consumptive diseases. Walking is the true natural exercise, since it brings into movement every part of the body, causes a brisk circulation and promotes active nutrition. If distance prevents getting

out into pure country air, cycling is a very good means of attaining the benefit. On damp days, when going out is impossible, indoor movements, like calisthenics and dancing, are good, but always in the purest air obtainable.

Rule III.—Uniform climate is important for consumptives.

The soil should be dry; the drinking water pure; the mean temperature about 60 degrees Fahr., with a range of not more than 10 or 15 degrees on either side. Shelter from northerly winds is advisable, and residence apart from crowded populations is very preventive, as consumption is more frequently developed fatally in cities than in the country. In England the excess of the disease in cities has been found 25 per cent. greater than in the country. Climates which are equable—high and dry—give excellent results. The disease does not flourish in arctic regions, nor in such very cold regions as the Orkneys, Shetland, and the Hebrides. The disease is most prevalent at the level of the sea, and decreases according to height above the sea level. In this country it is most common and fatal in the spring months, when variations of climate are most keenly felt, and when the atmospheric changes are the most trying and treacherous.

Rule IV.—The dress of the consumptive should sustain uniform warmth.

The clothing of consumptive persons should not be heavy, but should cover as much of the body as possible. It should be permeable, as in porous cellular clothing, which is always coolest and warmest; and it should fit loosely on the body, so as to exclude all tight-lacing, and everything that impairs the free motion of the chest and limbs. In damp, foggy weather a porous kerchief, like a small Shetland shawl, worn as a respirator, is good.

Rule V.—The hours of rest should be carefully regulated by the sunlight.

Consumptive persons should go to bed early and rise early, so as to get as much as possible of the best of all purifiers and revivifiers—sunlight. The morning air is of the greatest use, and an early morning walk, even in a town, is of extreme value. The bed clothes should be light and por-

ous. Porosity is of real importance, and should always replace such tempting but unhealthy coverings as the impervious eiderdown quilt. Each person should have his, or her, own bed. It is always bad for two persons of any age to sleep in the same bed.

Rule VI.—Outdoor occupation is preventive.

The occupation of the consumptive person should be, as far as possible, out of doors. Of 515 cases of consumptive disease observed by myself 68.34 per cent. of cases occurred among persons following indoor occupations. All occupations in which dust is distributed through the air are most detrimental to consumptive persons.

Rule VII.—Amusements of consumptives should favor muscular development and sustain healthy respiration.

This rule is very important. Amusements should be out of doors as much as possible, and should not be carried to so extreme a degree as to cause fatigue. Indoors they should be carried out in a well-ventilated room, and at reasonable hours. Such exercises as bring the lungs into play without strain are good; thus reading aloud is always good, and singing may, with prudence, be carried out beneficially. Playing upon wind instruments is not advisable.

Rule VIII.—Cleanliness in the broadest sense is of special moment.

The body and the clothes that cover it should be kept scrupulously clean, and all uncleanly and slovenly habits should be avoided. The bath, tepid, or just agreeably cold, should be resorted to frequently, so as to keep the skin persistently clean. Underclothing should be frequently changed, for health will not be clothed in dirty raiment. Every act of vicious sensual indulgence should be avoided, since the grosser the sensuality the greater the physical evil arising from it. Parents and teachers in schools should especially remember this truth. In cases where consumption is developed all clothing and articles connected with the sick, and all things connected with uncleanness, should be scrupulously removed, so that they come not in contact with other persons. It is especially urged that

expectorated matter, or sputum, from persons afflicted with consumption, should never be allowed to remain and dry, so that its particles can diffuse through the air. Handkerchiefs used by consumptive persons should be immediately removed and cleansed, or, what would be better still, pure white paper handkerchiefs, like those of the Japanese, which can be destroyed at once, should be brought into use. Spittoons should be most carefully washed and cleansed if they be used, and spitting upon the floor, or in any public vehicle, should be avoided, not only as a filthy, but as a most unsightly and unhealthy habit.

Rule IX.—Every precaution should be taken to avoid colds.

I do not remember ever seeing the commencement of symptoms of tubercular consumption without a preliminary cold. Getting accustomed to pure air, and plenty of it—getting inured, in fact, to outdoor cold—is, on the whole, a good precaution against taking cold. But sudden exposures to heat and cold, to draughts and to wet, are always dangerous. In the spring much danger arises from changing the clothes too rapidly from warm to cool suits. It is best never to overwrap the body with clothes at any season, but it is specially bad to make sudden extreme changes. It is also bad to get wet feet, or to keep on damp shoes and stockings. It is most injurious for women to wear the chest covered up all day, and in the evening to go into heated rooms with the chest, shoulders and back uncovered.

Rule X.—The diet of consumptive people should be ample, with full proportion of the respiratory foods.

With consumptive persons digestion is often capricious, since, as Dr. Arbuthnot well observed, "respiration is a second digestion." Fatty and oily foods, foods of the respiratory class, should predominate. Fresh butter with bread, if it agrees, may be taken freely, and cream is excellent; curds and cream are also excellent. Milk, when it agrees, is the best of beverages; fresh vegetables and fruits, and roasted apples are always advisable. Alcoholic drinks should be avoided altogether. Meals should never be heavy; four

light meals a day, with the food pretty equally divided as to quantity, is the best form. All foods should be well cooked, and the milk should, on every occasion, be boiled before it is taken. Mere luxurious habits are inadvisable for consumptive persons, and none more so than smoking.

A PRACTITIONER THROWS UP A POLITICAL POSITION IN NEW YORK AFTER THE SHORT EXPERIENCE OF 24 HOURS.

With the advent of the new year in New York the reform administration coming in, and Tammany going out, the lately appointed heads of departments and other officials have made sweeping changes and removals in every direction.

Among others who came in for a share of the public patronage was Dr. James E. Kelley, formerly a private teacher in surgery in Dublin, later of Boston, Mass., and recently professor of surgery at the New York Post-Graduate Medical School, and visiting surgeon to Charity, Gouverneur and the French Hospitals.

Through political support he was appointed a deputy Coroner, under Dr. William O'Meagher, the Coroner, his salary being the munificent sum of \$3000 per year; the position requiring that all outside practice, hospital work, etc., be discontinued.

Naturally, the public was surprised to see a practitioner of Dr. Kelley's age and status in his profession seek for or accept a position which the best element in the profession seldom care for, and besides, providing such a small compensation; but it was said that the deputy was accepting the position rather with a view of cultivating pathology in his autopsy work than for the trifling emoluments.

As a matter of fact, however, it was well known that no deputy Coroner of New York ever materially added anything to the general knowledge of pathology, and that even if one was so disposed it would be quite impossible for him to do so and prop-

erly perform his other imperative duties.

New Year's Day came and the Doctor went to work. He held the office just 24 hours and made one autopsy. He was astounded on receiving his appointment to be directed to examine and report on "30 cases," make the necessary examinations in widely separate sections of the city, and have his report complete and ready for the next morning's sitting of the Coroner's Court.

The Doctor evidently has learned a lesson that he was not familiar with before, viz., that there are no political sinecures for medical men in New York; that for every dollar they are paid, five are earned. The sinecures, are for those who navigate the political craft, many of whom are paid more than five times what they could earn in civil life at honest plodding.

Thank fortune, however, with this year the wretched Coroner's system of New York will be abolished and the prospects are that the new one, which will replace it, will not only be a vast improvement on the old, but will assure the medical department of it, a position of dignity and respect, with the remuneration in proportion to the responsibilities and duties incumbent on its members.

BEWARE OF THE IDES OF MARCH.

Undoubtedly in a general way the months of February and March are more dangerous to health than any others in the year. This is especially true of the Eastern and North-western and Northeastern sections of our country, in view of those affections which manifest themselves in the air passages. Pneumonia and influenza—so-called grip—have not been very prevalent this winter, but they have had a dreadful mortality, in those attacked. It has for a long time, been observed that after winter begins to break up, from the middle of February until late in April, that the system is more or less depressed; and, if one is prone to any special dyscrasia, it is pretty certain to manifest itself on trifling provocation, during this period. Erysipelatous in-

flammation of the tissues may assume alarming features from very slight abrasions or punctures, unless, the greatest precaution be observed to preserve the wound from irritation or cold; and in the extremities, when it once has made headway to any considerable extent, gangrene promptly follows in the tissues, exhausted by the destructive action of this violent malady.

Therefore, why in this season of the year, unless ample opportunities are afforded for the protection of our patients against exposure, and we have no assurance that the latest and most approved methods of wound treatment will be faithfully carried out, we should decline the performance of serious operations, and under all circumstances warn insectic patients of the tendency of septic inflammation setting in, after the most trifling wound.

Book Reviews.

MEMORANDA AND TABLES OF HUMAN ANATOMY.

Volume I, by Justin Harold, A. M., M. D., and Sebastian J. Wimmer, M. A., M. D., with a preface by Professor J. E. Garretson, A. M., M. D. Published by the Medical Publishing Company, 718 Betz Building, Philadelphia, Pa. Price, \$1.50.

This work aims to aid the practitioner and student in easy memorization and comprehension of anatomy. It does not enter into the lengthy discourses of large text books; but in a comprehensive manner boils down the essential material in a comprehensive form.

The preface written by Professor Garretson is a strong recommendation of the little work in itself, for there are few anatomists to-day who give more careful attention to detail work than he.

For the practitioner preparing for an operation these little works are of prime importance and to the student preparing for examination they are of infinite benefit as a time saver.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

A CONTRIBUTION TO THE STUDY OF TRAUMATIC DER- MOID CYSTS.

By Dr. Rene Le Fort.

The study of this class of cysts is of recent date. They have received very diverse designatives. They are produced upon the growth of a particle of cutaneous integument, which has been invaginated by a traumatism into the deeper tissues. Certain regions are particularly predisposed to them. The iris and the hand are their chief seat. Stoeber, first, who described the pearly tumor of the iris, succeeding injury.

About the same time Halke described them and reported 15 cases, which he had gathered from various sources. He claimed that an injury invariably preceded and caused them.

In 1872 Rothmond came out with an essay on the subject and agreed with his predecessors on the hypothesis which they offered. And this opinion was later supported by Door-male, Goldzieker and Schweinger.

They usually originate in the sebaceous follicles and contain all the epithelial elements, except hairs, bone or teeth. They are invested by the Malpigean layer of the derma and seldom contain and distinct adenoid elements. They may, in turn, undergo various changes, though they are not known to ever take on a malignant course, as many other epithelial structures do.—*Revue De Chirurgie*, 10th Dec., '95.

HERNIA THROUGH THE MEDIAN LINE AND SYMPTOMS THEREOF.

By K. Lenoff.

This author calls attention to an important symptom, which, he alleges, is always present in hernia through the median line, that are often so small as to be confounded with hysterics unless extreme caution is observed in examination.

He says that if we place our patient on the back and make her cough, at the seat of rupture we will feel a sense of impulsion of liquid and air, quite definite in character.—*Revue des Journaux, Gazette-Heb.*, 15th Dec., '95.

LIGATURE OF THE EXTERNAL ILIAC ARTERY.

At the Societe de Chirurgie, of Paris, held in December, 1894, M. Chauvel reported the case of an Arab child who had been wounded in the thigh by a pocket knife. It immediately resulted in a spurting hemorrhage, which spontaneously ceased, but recommenced after six hours. On admission to the hospital a compress bandage was applied and left in place for eight hours. When it was removed the clot was thrown out and the hemorrhage was again active. M. Nicot decided to ligate the external iliac, which was done without chloroform, by cocainization. Cure by second intention resulted. On the 13th day there was secondary hemorrhage, which was arrested by direct compression. Some days afterward there was gangrene of the foot, which was self-limited and the child recovered. The reporter was of opinion that it would have been preferable to seek for the divided ends of the vessel and tie them in the original wound.—*Revue de Chirurgie*, January 10, 1895.

ABLATION OF THE MAMMARY GLAND.

Horner gives the results obtained in 172 cases of malignant tumors of the breast treated by amputation—*Beitr. z. Klin. Chir.* Of this total number of cases, 158 were cancerous in nature. The operation itself caused 5.9 per cent. of deaths. The mean duration of life was eighteen and eight-tenths months more in these 172 cases than in those not operated upon. Horner adds that there were 17.7 per cent. of definite recoveries—that is to say, with no return of the disease after more than three years. These statistics include 14 cases of sarcoma, the average age of the patients being a little over 39 years.

Thirteen of these patients had a total of 17 operations performed; of this number there were ten recoveries, a mean of 76.9 per cent.

CONGENITAL HERNIA COMPLICATED BY ORCHIDOPEXY.

M. Courtier was called on the 24th of October, '94, to see a young farmer, aged 19 years, who, since birth, had a left inguinal hernia. The hernia was easily reducible, but the testicle had not descended and remained lodged firmly against the external ring. He had, for years, worn a truss, though of late it gave him so much pain that he had cast it aside, when the hernia rapidly augmented in volume. Finally the rupture came down, and symptoms of strangulation set in, with stercoraceous vomiting. Now a kelotomy was performed. On exposing and opening the sac a quantity of mucilaginous fluid issued through, and a knuckle of the small intestine came into view, which was healthy. After widening the ring and returning the intestine, the sac was partly resected, but enough retained to cover in the testicle. This was accomplished with much difficulty, because of the numerous and firm adhesions with the elements of the cord. By moderate tension the testes were brought down and fixed in the scrotum. Two months later, though the hernia was cured, the testes had mounted to its former position.—*Soc. de Chirurg. Bordeaux*.—*Le Mercredi Med.*, 20 Feb., '95.

RESECTION AND INTESTINAL APPROXIMATION, WITH THE AID OF THE MURPHY-BUTTON MODIFICATION.

By M. Villard.

M. Villard presented a patient from the service of M. Villas, on whom had been practiced a resection of 10 centimetres of intestine for gangrenous hernia, in which suture and the Murphy button had been successfully used. The patient entered the hospital of Croix Rousse in a very grave state with a strangulated crural hernia. After the sac was exposed M. Villard came on to a coil of

intestine, in advanced gangrene. He resected the dead bowel and joined the ends with Murphy's plate. The sequellae were very simple. In the evening gas freely passed the rectum; the next day abundant fecal matter. On the sixth day there were symptoms of obstruction, which yielded to a dose of oil and the button was thrown off. Three weeks after operation patient was quite entirely cured and left the hospital. This mode of operation permits an intestinal resection, which, heretofore, was quite impossible, by the ordinary means of suture of the intestines, for the reason that shock is avoided, and we may dispense with the artificial anus in this class of cases. He had recently adopted this same procedure in a case of cancer of the pylorus, making a gastro-enterostomy in 12 minutes. It was now five days since operation, and patient was making splendid progress.

M. Villard presented a specimen from the intestines of a dog, to combat the objection against Dr. Murphy's button, on the score of subsequent cicatricial contraction, as it clearly demonstrated that the objection was without foundation.

M. Villas strongly supported the speaker and declared that this marvelous invention was of inestimable value, rendering operations, heretofore attended with great danger and quite impracticable, easy of performance, with quite certain results.—*Le Mercredi-Med.*, 20 Feb. '95. *Soc. des Sciences-Medicales de Lyon.*

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

DISEASES WHICH MAY SIMULATE PLEURISY.

Trousseau commenced one of his clinical lectures in these terms:

Gentlemen:—"I admit that in the great majority of cases pleurisy is a very easy disease to diagnose; however, there occur cases in which, while all signs of pleurisy are present, yet the autopsy shows some

other affection to be the cause of death."

In support of this assertion the author proposes to group rapidly some of the diseases which may expose to these mistakes. Frequently signs of pleurisy with effusion are united in such manner as to render errors excusable. After a review of the thoracic organs, pleura, lungs and mediastrium, he reviews those of the liver and kidneys.

Diseases of the pleura simulating pleuritic effusion are rare. Excluding hydatid cysts, which are only differentiated from those of the lungs by their more considerable size, M. Aurtia has only found one observation published by Ouliment which bears on the subject. It occurred in a man attacked with a cartilaginous degeneration of the pleura, in whom the symptoms, dullness, soufflé bronchophony, abscess of vibrations were too clearly marked to permit anyone to think of anything else but pleurisy. But at the autopsy in this case there was no trace of liquid.

(b) Diseases of the lungs.

In the first place spleno-pneumonia requires consideration. This is, according to Graucher, a pulmonary congestion resembling in symptoms pleurisy. It occurs usually after a chill. The physical signs are those of a large effusion. In face of these signs others which might lead to a diagnosis are few; further, an effusion may in fact accompany spleno-pneumonia. The diagnosis between pleurisy and frank pneumonia is usually easy, but in pneumonia with bronchial obstruction, when the expectoration is wanting, it is only by the thermometer that the distinction can be made. Hydatid cysts may be mistaken for pleurisy, especially in the later stages, when the lung is crowded against the spine and the cyst gives the dullness in percussion—the absence of respiratory murmur and the dilatation of the intercostal spaces, and sometimes the displacement of the heart. The bursting of the cyst into the bronchi is frequently the first intimation of an error in diagnosis. Cancer of the lung has often been confounded with pleurisy and the reverse.

(c) Diseases of the mediastinum. Cyst and aortic aneurism have both been considered as cases of pleurisy.

(d) Diseases of the liver.

Dolbeau in 1886 pointed out the tendency in hydatid cysts of the liver to encroach on the thoracic cavity, reducing the volume of the lung to one-quarter of its normal extent. The only means of avoiding error consists in a careful tracing of the limits of the dullness. Cancer of the liver and peribronchial ganglion have been diagnosed as chronic pleurisy.

(e) Kidney diseases. A case of perinephritic abscess is described by Lafaulle in which the dullness on the right side of the chest—absence of vibration so marked pectoriloquy, etc., were so clear that a diagnosis of pleurisy was made.

Two of the most important signs of pleurisy, the disappearance of Traube's space and egophony merit further notice. At the lower part of the left chest is a region in which the percussion sound is tympanitic. This is semilunar in shape. It is limited below by the edge of the rib, above by a curved line whose concavity is directed downwards. The space thus formed commences in front below the fifth or sixth costal cartilage, and extends behind along the chest as far as the anterior extremity of the ninth or tenth rib. Its greatest size is from three to three and one-half inches. Traube thought he had found in pleural effusion the only means by which this space would be obliterated, but it may also be brought about by pleuro-costal adhesion, as Jacond has proved. Lacunec considered egophony as pathognomonic of pleural effusion, but pulmonary congestion may give rise to it. The egophonic character which bronchophony assumes under the influence of pleuro-visceral adhesions producing alterations in the voice and in its timbre are remarkable. The distribution of the effusion is dependent on the combined action of gravity and capillarity. The limit of dullness anteriorly is generally obliquely upwards and outwards, convex above when the patient is lying, more horizontal

when sitting and taking a direction perpendicular to the spinal column when lying on the face. The highest point of dullness posteriorly is found equidistant between the shoulder and spine. The displacement of the upper level of the pleuritic liquid is so frequently seen at the commencement of the effusion that it may be considered as pathognomonic. It should be looked for, anteriorly near the sternum, posteriorly on a perpendicular line equidistant between the shoulder and spine. It is more considerable when the cavity contains air as well as liquid. The lower limit is less frequently displaced.—*Annales de Med.*

STUDY OF TEMPERATURE DURING ETHERIZATION.

During the whole process the temperature is lowered. The depression shows oscillation much more marked at the commencement. During the first hour it varies between 2 and 2 1-2 degrees. In the second hour it is about the same (a few tenths lower). The depression is continued during the anesthetic sleep. At the moment of waking it begins to rise, following an inversed curve. The depression is greater in etherization than in chloroformization, probably due to a marked vaso dilatation in the former case. The face of persons etherized is almost always congested. Chloroform, on the contrary, produces a vast constriction, as seen in the pallor of chloroformed persons.—*Progress Med.*—E. W. B.

Dr. Vetten has recommended iodide of potassium as a specific in pneumonia. The drug should be given in large doses during the first 24 hours following the commencement of the disease.

For acne the following is recommended:

R. Sulphur (sublim.	7 grms.
Napthol B.	2 grms.
Storax ointment.	2 grms.
Fresh lard.	50 grms.

Rub in every night for a week. Omit a week and repeat. Cure is usual at the end of a week.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

A PLUNGE INTO ELECTRO-THERAPEUTICS.

THE WISDOM OF EXPERIENCE.

"There is a tide in the affairs of men which, taken at the flood, leads on"—to experience! When Doctor Holmes was confronted by the problem of perfecting himself in electro-diagnosis without a slow vibrator and single contact key he stood for the moment at the parting of the ways. There were two courses open to him. He could go on spending money to increase his outfit, or, he could stop!

In the latter case he foresaw that he would never become a finished electrician and others would pass him in the race of progress. His practice was already increasing. His fame was spreading in his community. His battery made quite an impression upon his office patients, and when he took it out to treat a bedside case he was observed by all observers. Mrs. B.—and others were beginning to tell about the wonderful things electricity had done for them and he felt that it would be a mistake to stop. Yet, should he plunge deeper? If so, how? His scientific apparatus had accumulated until he now possessed the following electrical appliances: One 16-cell combination galvanic and faradic battery; one pair of cords, handles and sponge electrodes; one set of copper electrodes, with special handles; one milliamperemeter and one bipolar electrode.

Reviewing these again with increasing professional pride he recovered some of the confidence he had lost when he sought in vain for the "slow vibrator," and concluded that after all he pretty nearly covered the ground. If he found in time that he really needed a few extra things he would buy them. An epidemic of tonsillitis shortly prevailed in his neighborhood, and among current medical literature on the subject the follow-

ing, by the merest accident, came under his eye: "Treatment of Acute Tonsillitis With the Electro-Cautery."

"Dr. K.—, at the State Medical Society, cited several cases. No. 1. Mr. G.—, commercial traveler. Both tonsils very much swollen. Was subject to similar attacks. Cauterized each tonsil three or four times. Pain disappeared in two hours. No recurrence.

"No. 2. Mrs. L.— Severe attack, each tonsil was punctured three or four times. Pain ceased in two hours.

"No 3. Miss W.— Pierced each tonsil four or five times with the galvanocautery. Pain stopped at once. The doctor employed a "cherry-red" heat. He carried the curved electrode from one-half to two-thirds of an inch into the crypts."

On reading this Dr. Holmes was convinced that he must keep abreast of the times. He at once went to his desk and wrote Messrs. Blank & Bank, dealers:

"Gentlemen:

"Please send me by return post a curved electrode. Also please inform me how to do electro-cautery work with your 16-cell galvanic and faradic combination battery, which I purchased recently. An early reply will oblige, etc."

He bought a little alcohol lamp, such as jewelers use, to heat the electrode cherry red, and while waiting instructions turned his enthusiasm in things electrical again to gynecology, neuralgia, paralysis, rheumatism, etc.

A long article in the medical column of a New York daily paper, on "The Removal of Superfluous Hairs by Electricity" also fascinated him, and he determined to acquire the technique later on.

He presently heard from the manufacturers in reply to his letter about cautery work:

"Dear Doctor:

"We can furnish you our improved electro-cautery apparatus for from \$35 to \$60. This battery is intended for eye, ear, nose, throat and all general cautery work, and is capable of heating the largest electrodes or a loop of any required size. Please state what 'curved electrode' you

wish, as we have various forms, both for genito-urinary, laryngeal and other work. If you are in need of curved sounds we would advise you to buy an entire set. Thanking you for your esteemed order, which we will forward promptly on receipt of your reply, we remain, etc."

Indeed! \$35 to 60! An entire new battery needed! What could this mean. When he first ordered his original \$15 faradic battery he read in some paper by a prominent author that fully 80 per cent. of all cases were treated by faradism. When he afterwards purchased the combination, he supposed, of course, that the galvanic side of the apparatus was for the purpose of treating the remaining 20 per cent.; and now he was calmly informed that he must buy an additional affair, which he knew nothing whatever about, and never dreamed existed! His wife said, however, that it would be too bad to have to tell people that he couldn't treat their tonsillitis just because he hadn't known about the right kind of battery, and as it was the only thing he lacked to make him a complete electro-specialist, she thought he had better buy it. Her sage advice prevailed and it was ordered.

Four years went by. It is not my purpose to relate the entire history of experiments, expenses and experience that developed Dr. Holmes at last into a practical electro-therapist. He had intelligence, ingenuity and perseverance, and these qualities brought him a good measure of success. He even became an authority! and was consulted in various electrical matters, upon which he gave sage advice.

The son of an old friend recently asked him how he could learn to use electricity in his practice. This was the substance of his reply:

"First, make yourself a skilled physician; then study the physics, physiology, mechanics and chemistry of medical electricity; then seek practical instruction in the technique of applying its general principles to the treatment of patients, and finally buy your outfit. Get experience and knowledge first and buy last. Don't do as I did, and buy first. Before I

knew a rheostat from a megohm and was absolutely ignorant of the difference between a galvanic and a faradic current I plunged headlong into what I thought was electro-therapeutics, but which was simply electro-foolishness. Don't do anything like this. Don't waste your time and money, but begin in a sensible way." "Now," continued the Doctor, "when I bought my first battery I paid \$15 for it. My ambition soon outgrew such a small affair and I invested in a 'combination,' for \$38. I measured its merits by the cost and size, and supposed it was two and one-half times better than No. 1. It took me a year to find out my mistake. The galvanic side lacked meter, interrupter, rheostat and sufficient E. M. F. The faradic side lacked everything. It was not a therapeutic apparatus at all, and deserved only to be skillfully poised on the threshold of my backyard and kicked into the ash heap. I tried to supply deficiencies by ordering extras, but my knowledge was too limited to select properly, and the collection I made was for the most part obsolete and worthless. For instance, a bipolar electrode I ignorantly purchased, and with equal ignorance tried to use, was so big, clumsy and wide between the poles that it would fit nobody with a less capacious pelvis than a brawny dispensary rounder with fourteen children. I bought a milliamperemeter that registered 250 ma., when a standard Weston instrument registered 100 ma., and which had to be tapped and shaken when in use to get the needle to move. Let me give you a little wholesome advice. If you wish to acquire skill in the use of electricity don't set about it alone and don't rely on what you find in text books. First take a course of instruction in some one of the post-graduate clinics, where electro-therapeutics is practically demonstrated. Attend all the lectures and observe the clinical work. Begin to read everything you can find on the subject. If you can induce a reliable expert to take you as a student for a couple of months, do so, no matter what it costs. It will pay you in the end. As there are various branches of electrical work

in which special technique is employed—for instance in genito-urinary and gynecological practice—you should obtain a short course of practical instruction in each. When you have devoted about six months to an apprenticeship of this kind you will have laid the foundation for ultimate success. You will now find that you can weed out obsolete and untrustworthy matter from your reading and you will be able to choose whom to follow and whom to avoid.

"While you are doing this you should be getting acquainted with all kinds of apparatus and be able to know good work from bad. In this field there is hardly any middle ground. Either an electrode, meter, battery, etc., is properly made and reliable, or it is worthless.

"Remember that a high price is no guarantee of a high grade of quality. A polished cabinet costing \$200 may be less satisfactory than an apparatus costing much less. When I bought my 'combination' I thought it was a fine idea to have both galvanic and faradic currents in the same box; but, fortunately, my error was made on a cheap scale.

"I should have had a galvanic switchboard put on the wall in my office, convenient to my operating table, and at least 40 good cells stowed out of sight on shelves in a corner. Faradic coils were not then perfected as they are now, and you can now get a portable faradic battery with such a variety of coils and improvements that with it you can do every class of therapeutic work within the range of induction coil currents. No cabinet includes such a battery, and you should buy it separately.

"Where you buy is also quite as important as what you buy. There are various jobbers, wholesale druggists and dealers in sundries who sell cheap 'family' batteries, etc. As they are not electricians and have no judgment as to therapeutic needs in this line it will not be wise to patronize such houses. Nor will it be satisfactory to buy in advance of your requirements.

"You will get tired if you buy every new thing offered you until you find that you really need it.

"Probably the most important thing for you at the start is to select the right firm to trade with. A manufacturer may be honest, but that don't necessarily make him understand his business, and you only wish to deal with men who understand their own goods and know how to make them properly. If you are handy with tools you can learn to adapt and extemporize many little appliances so that you will not need to collect a great lot of costly electrodes. Just a word I omitted about therapeutic applications. You will find that out of every dozen authors more than half of them disagree, and if you attempt to commit to memory all the minor details recommended by each you will be swamped in the midst of confusion. Don't try to remember that in one specified disease the positive pole is used while in another the negative is employed. Ground yourself rather in the action of each pole and the effects of each variety and strength of current. Know just what action you get with the different coils of long, or medium or short wires, and in the sizes used by leading makers. Familiarize yourself also with the relation between different resistances and the current effects through them. When you are master of these general principles the path to successful work is open to you and you can continue to learn with greatly increased facility, and the more you practice the more you will learn. I remember," concluded Dr. Holmes, "when all I knew about electricity was that it would contract muscles. Some added to this the remark that 'it would amuse the patient.' In 1889 the ablest consulting diagnostician in New York was accustomed to say to his classes of 400 or 500 medical students that 'electricity was better for the physicians' pocket than for the patient's health.' The prejudice spread against this agent by his statements alone must have been enormous. With my present views of the actual merits of medical electricity I need not express any opinion of the attitude towards electro-therapeutics displayed by a few 'great men.' Electricity is a wonderful force. It has wrought an admitted revolution in the field of me-

chanics. I believe that it has possibilities quite as wonderful in the field of medicine. If this is not generally admitted it is due largely to a single fact. In mechanical uses of electricity, methods, instruments, etc., bear a comparatively exact relation to results. Given proper apparatus a hundred different workmen will each be able to produce about the same results, but in medical uses of electrical currents we are not only met by the fact that medicine is not an exact science, but also by the additional uncertainty of 'personal equation' among physicians. Electro-therapeutics will be whimsical a little while longer, until antiquated, inferior, imperfect, defective, inadequate and worn-out batteries cease to be in general use among us, and improved, high-grade therapeutical apparatus and a common basis of procedure take their place. A manufacturer must keep up with progress or competitors will make goods better and cheaper than he and outsell him, but a doctor will cling to an old electro-magnetic junk shop machine that he has had for 20 years, and because it won't give out a high tension current he takes no stock in such new-fangled fads anyway, but plods right on in his narrow self-satisfied routine. If we could call before us a vision of the several thousand batteries in alleged use—the accumulated output of probably a hundred makers during a generation of time—what a spectacle we should behold! If we could also witness the thousand and one methods of go-as-you-please application we should cry out in protest against such vaudeville performances claiming to have any part in the grand science of electro-therapy.

"Weed out dilapidated, by-gone apparatus, stop buying coarse and cheaply-made goods that have no real therapeutic value. Buy none but the best, strive towards scientific uniformity in the use of improved methods, accurate dosage and clinical records, follow the inspiring lead of the ablest pioneering genius in this field to-day; beware of the misleading electrical literature of the past, master sound principles and continuously develop your technique,

and you will possess not merely a single curative agent of inestimable value, but a whole arsenal of weapons, capable of being directed with infinite skill against an ever-increasing variety of morbid states, and constituting, without doubt, the most important ally yet discovered to the still insufficient resources of *materia medica*."

At this moment the Doctor was called to treat an interesting case of sciatica with static sparks, and conversation came to an end.

S. H. MONELL, M. D.,
44 West Forty-sixth street, New York.

Therapeutics.

IN CHARGE OF
DR. LOUIS LEWIS, Philadelphia.

THE ACTION OF SALOPHEN IN PAINFUL AFFECTIONS, NEURALGIAS, CEPHALALGIAS, ETC.

BY DRS. DE BUCK AND VANDERLINDEN.

The anti-rheumatic effect of Salophen, especially in acute articular rheumatism, has been demonstrated by various authors, but less has been written with regard to its analgesic effect. In our opinion the incontestable efficacy of Salophen in this direction has not been sufficiently elucidated, although numerous articles in recent times have reported excellent results from the remedy in the extensive domain of nervous, painful affections, such as cephalalgia, hemigrania, neuralgias, pleurodynia, neuritis. We have attempted, therefore, to make a closer study of this subject. What induced us especially to test Salophen in the treatment of such affections was, aside from theoretical considerations, the unreliability of the anti-neuralgics and analgesics in common use.

We have treated with Salophen 23 cases of various nervous affections attended with pain. Of these 17 were completely cured, two improved, and only four not perceptibly relieved. Among these 23 cases, favorable re-

sults were obtained twice in three cases of cephalalgia, once in two cases of sciatica, in three cases of odontalgia, in six out of seven cases of facial neuralgia, in three of four cases of lumbo-abdominal neuralgias, in one of two cases of intercostal neuralgia, in one of two cases of pleurodynia.

We will confine ourselves here to a summarized report of a few of our observations, which seemed to us of especial interest, because they permit of a comparison of the analgesic properties of Salophen with those of other remedies of this kind.

Case 1. Miss T., aged 56; facial neuralgia, which had resisted treatment with aconitine, quinine, antipyrine internally and in subcutaneous injection. We ordered:

Salopheni8.0 gm.
Div. in part, aeq. No. VIII.
Sig. Four powders daily to be taken
in milk.

One hour after taking the second dose a remarkable alleviation of the pains occurred, which disappeared completely after the third dose, and failed to return on the following day. The patient considered himself cured and discontinued the remedy, but on the third day the pains returned. The administration of Salophen 1.0 gm. again produced rapid relief, and after five days' use of 2.0 gm. pro die no recurrence took place, when the remedy was discontinued.

Case 2. Domestic, aged 59; menopause one year. Since then has suffered from trigeminal neuralgia on left side, which is sometimes so violent as to compel her to keep in bed. Mental state much depressed in consequence. A physician proposed extraction of several teeth. We saw her November 18, 1894, during a severe attack, which had lasted almost the entire day, and ordered:

Salopheni10.0 gm.
Ft. Dos. No. X.
Sig. Five powders daily.

She was ordered to take three powders during the evening, and at our visit the following morning found that she had gone out to make some purchases. The pains had entirely vanished.

Case 3. Female, aged 37; lumbo-sacral neuralgia. Symptoms of mark-

ed nervousness. Patient had consulted several physicians who had administered such remedies as bromides, iodide of potassium, phenacetine. We ordered four powders of 1.0 gm. each of Salophen daily. Two days later patient returned completely restored and freed from pains.

Case 4. Ph. DeB., aged 52, laborer; lumbo-abdominal neuralgia. Complains especially of pains in scrotum and testicle. After having tried without success several anti-neuralgics he consulted us and we ordered Salophen, four powders of 1.0 gm. each, daily. Complete cure in five days.

Case 5. Miss E., aged 40, suffered from time to time from violent headaches of uncertain origin. At first the attacks could be relieved by antipyrine, but this soon lost its power. A dose of 1.0 gm. Salophen, however, always afforded relief. After four doses of 1.0 gm. a cure resulted in the course of five days.

Case 6. Antoinette H., suffered from a severe intercostal neuralgia which had resisted the administration of various anti-nervines. Salophen 3.0 gm. in three doses at intervals of two hours, afforded relief of pains. The improvement was but temporary; the disturbances recurring regularly three or four days after remedy was discontinued. Resumption of drug was always followed by favorable though transient results. As patient requested radical cure, resection of the nerves was performed.

Case 7. Lumbo-abdominal neuralgia due to excessive bicycle riding. Patient H. M., aged 38, has already taken, without success, quinine, phenacetine and antipyrine. Under use of massage, douches, vesicants and the actual cautery some improvement, but no cure had resulted. Salophen 4.0 gm. pro die produced cessation of pains in three days.

We regarded it as superfluous to report other observations, since the ones cited prove the value of Salophen as an analgesic. We would remark in this connection that these results were obtained from the administration of comparatively large doses (at least 3.0 gm. daily). Our

first experiments taught us that we must often resort to such doses in order to attain a really good effect. This explains the failures that have been experienced by some observers.

It is not necessary, however, to always employ such large doses; frequently doses of 0.75 and even 0.5 gm., repeated once or twice, are sufficient to alleviate the pain, if not to effect a complete cure of the neuralgia.

In some cases of odontalgia especially we have observed relief under the influence of small doses.

Case 8. Phar. DeJ., aged 37, suffers from toothache, which occurs in frequent and violent attacks. Two doses of 0.5 gm. Salophen afford prompt relief.

Case 9. Female, aged 32, odontalgia. Disappearance of pains after three doses of 0.75 gm.

Case 10. Seraf. Vandermer, aged 45, toothache. Pains alleviated by two doses of 1.0 gm.

We regard ourselves, therefore, warranted in the conclusion that Salophen possesses an undoubted anti-neuralgic and analgesic effect. This action frequently is manifested only from doses of 3.0 gm. and more *pro die*. Occasionally, though quite rarely, smaller doses suffice.

The use of this remedy is unattended by disagreeable after-effects or disturbances of the stomach or intestinal canal. It is readily taken on account of its freedom from taste or odor. We are convinced that given in doses sufficient to produce a cure or at least improvement Salophen is perfectly innocuous, and we would recommend it in neuralgias, cephalalgia, as well as in other painful nervous affections.—Allg. Med. Centralztg., No. 1, 1895.

NOTES ON HYPNOTICS.

J. E. McCRAIG, PROVIDENCE, R. I.

Among the older medicaments perhaps no class gave less satisfaction than the hypnotics. Opium and its salts, when given in safe doses, are unreliable as sleep producers, chloral is dangerous especially in those cases where its hypnotic ac-

tion is most urgently desired, where the heart muscle is deteriorated by the strain of long-continued insomnia and lack of nourishment. Both are undesirable for their tendency to habituation. Hyoscine often fails and is always dangerous. The bromides are not sufficiently powerful to be of great practical use, and their depressing effect when long continued makes them undesirable. The newer drugs of this class have given better satisfaction, and although the literature of Trional and Sulfonal is fast becoming quite extensive, the following notes of cases may not be without clinical interest. They are selected from a number of cases in which these drugs were exhibited as showing the results under different conditions.

Case 1. A. M., female, age 23, Irish, acute delirious mania; temperature 103 degrees Fahr., pulse 130, respiration 30; tongue brown and dry, teeth covered with sordes; intense motor excitement; incoherent. Had been given morphine and hyoscine hypodermically to produce sleep, but unsuccessfully. Had slept but one hour in the last 70. Given Sulfonal 1 drachm in hot whisky at 9 P. M. Next morning was quieter, after having slept three hours. Temperature 100 degrees Fahr.; pulse, 120; respiration, 25. Sulfonal repeated at 9 P. M., after which she slept five hours. This treatment, together with stimulants, tonics, etc., was continued for 30 days and she eventually made a good recovery. After the first dose the urine was retained, requiring the use of the catheter for three days.

Case 2. C. B., female, age 74, American, chronic melancholia. Temperature and respiration normal; pulse, 80; arteries atheromatous, urine normal. Had been taking nightly doses of chloral gr. xl. for 12 years. Became agitated and chloral failing when given in reasonable doses, was given Sulfonal gr. xxx, which gave eight hours' good sleep. This was continued for three months, during which she improved physically, though no mental change was manifest. At the end of that time Trional was substituted in 30-grain doses, which were gradually

reduced till six months later she slept fairly well on 7 grains nightly. In this case also the urine was retained, requiring catheterization for 48 hours after the first dose, the drug being continued.

Case 3. S., female, age 57, American, acute melancholia. Attempted suicide by opening the left radial artery with a pen during the night and bled to syncope. Twelve hours later went into a condition of frenzy, biting, scratching, tearing off her clothing and attempting to injure herself and all about her. At this time the pulse was imperceptible at the radial. Was given Trional gr. xl. in hot whisky by the nasal tube, and as she was still violent was given 10 grains more in 15 minutes. Was asleep in 15 minutes after the second dose. Slept 18 hours and awoke quieter. During her long sleep she was awakened to take nourishment once, immediately dropping off to sleep again. At no time were there any untoward symptoms. She finally made a good recovery mentally and physically, Trional being given as required to produce sleep.

Case 4. C. S., female, age 17, American, acute delirious mania. Temperature 102 degrees Fahr.; pulse, 130; respiration, 30; tongue dry, brown and cracked; sordes in the mouth, herpes on lips. Had neither food nor sleep for three days before admission. Given Trional gr. xl. Slept three hours. Following night slept five hours on the same dose. On the third night the dose was reduced to 30 grains, on which she slept six hours. The drug was gradually reduced to 10 grains nightly, with which she got a good night's rest. She is now convalescent.

Case 5. A. M., female, German, age 43; acute mania. Temperature 99; pulse, 100; respiration normal; mitral regurgitation, compensation fairly well maintained. For insomnia was given morphine hypodermically without satisfactory results. On account of the cardiac condition Sulfonal was given cautiously, the initial dose being 20 grains. The first two nights the patient slept very little, but on the third slept all night. This condition was continued for a month, the heart being carefully watched,

but no ill effect was observed. She became chronic and died two years later.

Case 6. M. J. F., female, aged 47, American. Sane approaching climacteric. After an attack of dysentery suffered from insomnia, which was assigned to domestic anxiety. Derived good effect from nightly doses of 15 grains of Trional, and upon attaining a better frame of mind a month later abandoned the use of the drug without any trouble.

Case 7. W. M., male, age 32, American, druggist; family history of phthisis. Patient suffered from indigestion and insomnia, aggravated by business worry. After a sleepless night took 15 grains of Trional at 2 P. M. and attempted to sleep. Half an hour later took 15 grains more and was asleep in 15 minutes. At 7 P. M. he was awakened and though feeling some giddiness and slight nausea attempted to do his usual work. When seen at 9 P. M. he had been vomiting, face cyanotic, extremities cold, perspiration profuse, temperature sub-normal, pulse 120, very small and weak. Consciousness was unimpaired and the patient complained of nothing but nausea and cold. He was treated with stimulants. Strychnine and nitroglycerine hypodermically and warmth externally. He soon rallied and slept comfortably all night. He was confined to bed for three days, complaining of nausea upon trying to rise. For some time subsequently he complained of irritability of the bladder and traces of sugar, and largely increased urates were found in the urine.

It will be noted that in Cases 1 and 2, in which Sulfonal was given in somewhat large doses, retention of urine followed the first dose. My former colleague, Dr. Charles B. Mayberry, of the State Hospital for the Insane, at Danville, Pa., has kindly furnished me with notes of a case of maniacal excitement occurring in a paretic dement of one year's standing, in which two one-drachm doses were given upon consecutive nights. After the second dose the urine was retained and had to be drawn by catheter. In this case, as in one of the former, the urine was normal in quantity and

character. In one it was ammoniacal. None of these patients presented histories of retention and they have since had no trouble. I have not been able to find any reported cases of this trouble following the use of Sulfonal, but in all these cases we were able practically to exclude any other causation.

In Case 7 the ill effects in some measure are due to the interruption of sleep. I have never observed anything similar following the use of Trional in other cases and I have used it quite extensively both in sane and insane patients.

It is but fair to state that in the cases quoted I have included all those in which I ever observed any ill effects from these drugs and omitted as lacking in interest these routine cases in which they were a source of comfort both to patient and physician. In my opinion we have in Sulfonal and Trional, but especially in the latter, many of the qualities which go to make the ideal hypnotic, reasonable safety, reliability and freedom from unpleasant after-effects and the tendency to habituation.—Medical and Surgical Reporter, Philadelphia Pa.

Miscellany.

PHILADELPHIA DENTAL COLLEGE BANQUET.

The faculty of the Philadelphia Dental College gave their annual banquet to the graduating class and invited guests on Wednesday evening, March 6. The menu was one of the best served at the college in many years. After dinner speech-making was indulged in for an hour or more, as is usual on these occasions, Dr. J. E. Garretson acting as toast-master.

THE GARRETSONIAN COMMENCEMENT.

The annual commencement of the

Garretsonian Society was held on the evening of March 5 in St. George's Hall, Philadelphia.

This society was established in 1892 for the purpose of scientifically advancing the knowledge of philosophy, and since that time has become a very large and flourishing organization.

The exercises consisted of a fine musical program, and an address by Dr. H. C. Boenning, professor of anatomy. Diplomas were presented to 100 graduates of the society.

During the winter months regular weekly meetings are held on Tuesday evenings in the amphitheatre of the Medico-Chirurgical College, lectures being given by some of the most eminent philosophers, preachers and thinkers of the day. The society is a great help to the students of the Philadelphia Dental College and others, contributing in no small degree to the success of that institution.

COMMENCEMENT AT THE PHILADELPHIA DENTAL COLLEGE.

The 32d annual commencement of the Philadelphia Dental College was held Thursday evening at the Academy of Music, before an audience that completely filled the auditorium. The front of the stage, which was almost completely hidden by bouquets, wreaths and baskets of flowers, was draped in red.

Hassler's orchestra played several selections before the procession, composed of the faculty and students, led by the president of the Board of Trustees, ex-Governor General Beaver, and the dean of the college, Dr. James E. Garretson, entered from the rear of the stage, which was the signal for prolonged applause. The graduates were dressed in the customary cap and gown, but the yokes of the latter were for the first time bordered with a ribbon of old gold and olive green, the college

colors, which considerably enhanced the picturesqueness of the attire.

The exercises were opened with prayer by the Rev. S. D. McConnell, after which Dr. Garretson called the roll of graduates, who took up their position in front of General Beaver as their names were called in lines of 28. The first line had two lady graduates among its number and each of the succeeding three lines had one.

General Beaver then conferred on them the degree of doctor of dental surgery, by presenting them with their diplomas, which he said enrolled them in an honorable profession that was making gigantic strides in the march of science, that would be reflected on their future work in the same proportion as their love for their adopted calling. The General, in addressing each line of graduates, gracefully commenced by addressing himself to the ladies first and then the rest of the class before him.

The address was delivered by Professor Stellwagen, who said: "Class of 1895, the faculty extends to you, with their whole hearts, the free fellowship of professional brotherhood, and welcomes your advance into this more perfect association of fraternal interests in a common and naturally profitable life communion." The speaker then invited their attention to the grave and serious accountabilities and high and ennobling duties they had so conscientiously assumed by the acceptance of diplomas conferring the doctorate upon them. A document thoroughly complete, legal and universally revered; a license to practice the important and glorious specialty of the science and art of healing.

"Fail not, however, to remember," said Professor Stellwagen, "that you have within your grasp, as the result of unselfish devotion to the highest interests of your calling, possibilities which money by millions could not purchase. Your pole star for navigation of life's tempestuous sea is spotless professional character."

The valedictory was delivered by Dr. George Fulton Taylor, of Massachusetts.

BOVINE TUBERCULOSIS.

The Joint Committee on Agriculture and Public Health of the Massachusetts Legislature, which has in charge the matter of the suppression of bovine tuberculosis, is reported to have agreed that the cattle commission is to be granted \$150,000 for the completion of its work, instead of the \$212,000 asked; that the farmers are to receive as compensation for tuberculous cattle the full value of a healthy animal; that the State shall pay all quarantine expenses after seven days, and also pay for all carcasses condemned as tuberculous at the slaughter house. As the cattle are ordered to quarantine by local inspectors not responsible to the State Commission, and as owing to the smallness of the appropriation the force of the commission will have to be reduced, so that it will be impossible to make all tests within the seven days of quarantine at the farmers' expense, it is feared that if this bill becomes a law it will result in very heavy expenses to the State. With regard to paying for tuberculous carcasses at the slaughter houses, what reason is there that the State should pay for them, any more than pay for other food unfit for use? And what has the payment by the State for meat condemned as tuberculosis to do with ridding the State of tuberculosis among live cattle? Surely, this bill, if passed, will be framed to give the farmers and cattle-owners something for nothing—in fact, pay them for allowing the favor to be done them of purifying their herds. It would be a profitable business for farmers to import tuberculous cattle purchased at their real value outside the State and sell them to the State for ten times their real value.—Boston Medical and Surgical Journal.

A State Examination in Georgia.—The new law providing for a State Board of Medical Examiners (really, three boards—regular, homoeopathic and eclectic), went into effect on January 1.

The Times and Register.

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WHOLE No. 863.

Original.

NEW REMEDIES IN DERMATOLOGICAL PRACTICE.

BY LOUIS LEWIS, M. D.

Within the past few months I have had opportunities for testing the merits of three conspicuous proprietary preparations, and have secured such satisfactory evidence of their worth in their respective roles that I feel justified in printing my experience in a general way. They present many distinct advantages over the older applications, and bear flattering testimony to the advance of scientific pharmacy. I refer to the compounds of iodine with coal tar derivatives, named europphen, aristol and losophan, all of which are highly serviceable in the treatment of various lesions of the skin, including those due to specific disease.

Quite a number of cutaneous eruptions are but the outcome of deeper troubles within the system, dependent on disorder of non-cutaneous organs, and may act as media for the removal of substances inimical to the human body. This is exemplified by the questionable advantages of a too hasty cure in many herpetic affections. Chronic catarrh of the bladder will often be ameliorated by the supervention of an attack of shingles. Asthma is sometimes relieved on the accession of an eruption of psoriasis. Extensive patches of erythema fugax disfigure the face as dyspepsia yields to treatment; and wheals of urticaria announce the subsidence of certain gastric irritations. Phthisis may be delayed in its progress by a carbuncle. Sugar is sometimes diminished in diabetic urine on the

appearance of eczema or pruritus about the genitals, more especially at the climacteric period. A disordered mental condition has found relief from the sudden happening of a squamous eruption on the scalp. The skin would seem to be nature's chosen organ for the accomplishment of crises that attend the breaking up of many chronic diseases, as well as a means of exit for systemic poisons.

The above little digression has reference to instances in which too precipitous healing might possibly be hurtful, or at least inexpedient; but in the large majority of lesions and eruptions of the skin the speediest possible cure is advisable, and topical treatment of the first importance. Of course the exanthemata are excluded; they must be treated by remedies affecting the system at large.

The preparations herein advocated have a wide range of usefulness, owing to their adherence to the surface when applied as powder, and to their antiseptic, anesthetic and cicatrizing properties. Moreover, they are harmless; and, if not all, entirely odorless, they are at least free from the repugnant qualities of their common predecessor, iodoform.

Europphen is an iodized substitution-product of iso butyl-cresol, resulting from the action of iodine (dissolved in potassium iodide), on a watery alkaline solution of iso-butyl-orthocresol. It is an orange-yellow powder, of cinnamonic odor, containing 27 per cent. of iodine. The latter is continuously separated in minute particles wherever moisture is present, and so contributes to the

arrest of germ growths; and the presence of cresol, a coal-tar product, likewise adds to its antiseptic properties. I have witnessed its good effects as a dusting powder in various skin diseases; for instance, in chronic weeping eczema, seborrhea, impetigo, psoriasis of catarrhal character, and Pityriasis pilaris. It is useful in ozena, syphilitic otorrhea, hay asthma and nasal catarrh, used through an insufflator, and is beneficial in chilblains, boils and onychia as an ointment. For soft chancres, herpes preputialis, condylomata, balanitis and the hard initial lesions of syphilis, I have found nothing so appropriate or more incisive in action, a week or even less being often sufficient to heal them. All forms of ulceration are benefited by its use, except in the very acute stage. In a case of obstinate leucorrhea coming from the glands of the cervix its speedy success by insufflation was phenomenal; for almost every known application had failed to effect a cure, though temporary relief was afforded during treatment. Europhen should be helpful in all local affections that derive benefit from any iodine compounds or coal-tar derivatives. I have used it mostly in the form of powder; but it is equally effective as an ointment with lanolin or dissolved in collodion, oils, or ether, in cases where the powder might be inconvenient or inapplicable. As europhen has been already lauded by numerous practitioners with ampler clinical facilities I feel it almost superfluous to add my testimony; and I am confident it will elbow its own way into general favor, not only by reason of its intrinsic value, but also on account of its many advantages over iodoform, which should be relegated to the realms of pharmaceutical desuetude. The days of its odorous notoriety are surely numbered, whereas europhen offends not the nose. "*Le roi est mort, vive le roi.*"

Aristol is an iodide of thymol, produced by the action of a watery solution of iodine in iodide of potassium on a similar solution of thymol in the presence of caustic potash. It is a pinkish heavy powder, holding about 45 per cent. of iodine; is soluble in ether, chloroform and

collodion; and extremely so in oils. It is remarkable for its adherence to surfaces (like europhen and losophan), and for its command over suppurative and ulcerative processes. Aristol is applied in powder, in ethereal or oily solution, or in collodion, lanolin or vaselin. It is a good application to all ulcers, whether simple or specific, and, dissolved in collodion, it provides a protective covering for erythematous and erysipelatous eruptions. As a general substitute for iodoform I would give my preference to europhen; as a wound-dressing and in the treatment of burns, bed-sores, some ulcerating syphilitic lesions and parasitic skin diseases, aristol is perhaps the better. The two powders, combined in equal proportions, will heal syphilitic sores that have been rebellious to either one of them when employed alone. Aristol has rendered good service in lupus and epithelioma; it is counted little short of a specific in some forms of eczema; it is of value in tinea, sycosis and mycoses, and it furnishes a satisfactory remedy for scabies.

Losophan is produced by the action of iodine upon m-oxytoluic acid in the presence of alkali, and is a triiodo-cresol. It is a white impalpable powder, practically inodorous, and contains 80 per cent. of iodine. I have had less chance to test its uses than europhen and aristol, but am assured it is of specific value in fungoid and parasitic affections, and of general utility as a dusting powder for ulcers. Acne, prurigo, eczema, pityriasis and herpes tonsurans are said on good authority to be amenable to losophan; and its use in the form of a 10 per cent. ointment is recommended in the treatment of scabies and sycosis.

2011 Arch street, Philadelphia.

Koch's comma bacillus, while the most common micro-organism found in cholera patients, is now said to be known to swarm in the intestinal canal of man without causing cholera. Some bacteriologists think that another microbe must be associated with it to give it the power for evil it seems to possess in such cases.

LOCAL ELECTROLYSIS AND ZINC-AMALGAM CATAPHORE- SIS IN MALIGNANT AND NON-MALIGNANT TUMORS.

BY G. BETTON MASSEY, M. D.,

Before reporting the three cases on which this new treatment of morbid growths is mainly based I must explain what I mean by local electrolysis and zinc-amalgam cataphoresis, and also advance reasons for my belief that these methods either separately or together present important advantages over cutting operations in certain cases of benign vascular growths and incipient cancers.

Local electrolysis means simply that the electrical decomposition of the tissue salts is confined to a localized area by the approximation of the poles. If both poles of a galvanic current be placed in the morbid tissue quite near each other the bulk of the current will be concentrated within the portion of tissue immediately between them, and but little will traverse the outside healthy parts. In practice they should not be further apart than from a half to one inch, though this depends entirely on the strength of current to be used and the size of the growth. So placed, an enormous current may be employed to dissolve a morbid tissue without affecting surrounding tissues, the parts having been chilled by a spray, or otherwise rendered anesthetic, if sensitive. The surgical possibilities of such currents are quite remarkable. All the salts and liquids of a given growth lying between the points become a prey to such a current, the watery contents being turned into oxygen and hydrogen gases, and the complex salts into solutions of acids and alkalines. This is, of course, attended with a material rise of temperature, but nothing like charring. If the tissue subjected to the process is soft and vascular, or juicy, there will be very little left between the poles after the gas has been given off but the acids and alkaloids dissolved in a turbid liquid remainder. If the tissue is

tougher and more fibrous a gristly residue will be found which can be detached or left to be detached by nature.

The strength of current required to destroy tissue in this way depends altogether on its concentration at the active spot. A minute reproduction of the process occurs when we supply but two or three milliamperes to the papilla of a hair sheath, or to a mole on the skin; but to completely dissolve tissue between two or more needles a half inch apart requires at least four hundred to seven hundred milliamperes.

Whether this portion of my method has any advantages over a cutting operation in removing malignant or non-malignant external growths depends upon circumstances. It is clearly inapplicable to any growth within the body unless it is situated in a drainable natural cavity, as a considerable quantity of detritus must drain away. It also presents the disadvantage of not permitting healthy tissues to be united at once over the seat of the removed growth, a procedure, however, that is often a doubtful utility, as it frequently covers up portions of the disease that failed to be removed. The advantages of the method over the knife are, on the other hand, by no means inconsiderable. It is absolutely bloodless, no matter where applied, thus enormously conserving strength after operations notoriously bloody; the edges of the undestroyed tissue remain non-absorbent, lessening risk of sepsis; and finally there seems to be some property in the galvanic current to cause a retrogression of the whole of a benign growth even when but a portion is directly acted on, as in Apostoli treatment of fibroids and the ordinary treatment of moles and other small skin tumors.

If the growth be a benign one the application described will probably cover the whole of the active treatment. If it be malignant, on the contrary, the second portion of the method—zinc-amalgam cataphoresis—is employed, a procedure of great value in radically removing all remaining traces of a still localized cancerous growth.

Zinc-amalgam cataphoresis is electrically mono-polar, the single active electrode, which is always positive, being applied to the cavity left by removal of the greater portion of the growth, while the indifferent or negative electrode, in the shape of large conducting pads connected together, is placed on any convenient portion of the body. The active electrode is a freely-amalgamated zinc surface of one or two square centimetres area, which is held successively against all portions of the bottom and edge of the excavation. From 150 to 300 millamperes are sufficient, the pain being controlled by cocaine in solution placed in the excavation beneath the electrode, to be conveyed into the tissues simultaneously with the nascent oxychloride of zinc and mercury which is dissolved from the electrode by electrolysis.

By this procedure we search out and destroy all remaining spurs and paths of infection in the contiguous unhealthy and healthy tissues, the current seeking vascular and cellular paths of less resistance by preference in its journey to the other pole; and to the lethal effect of the current we add the well-known lethal effects of nascent mercury and zinc compounds. The surface of the amalgamated zinc electrode is consumed in the process—the mercury as well as the zinc—producing a mixed infiltration of the immediate polar region that is readily detected by the eye. Low organisms in the immediate neighborhood of the electrode quickly succumb, and the antiseptic value of the procedure is shown in the correction of any odors that may have accompanied the cancerous discharge. That the action is not confined to the immediate neighborhood of the electrode was well demonstrated in one case in which the zone-like base of a cancer was observed to lose its induration and shrink in places at least an inch distant from the contact point.

The applicability of the first portion of the method—local electrolysis—to a benign growth was shown in the following case:

Case 1. Large intra-uterine cystic fibroid destroyed piecemeal by re-

peated applications of bipolar local electrolysis, resulting in a satisfactory cure.—Mrs. D., a nullipara, aged 39 years, was referred to me by Drs. Hemminger and Bixler, of Carlisle, Pa., in September, 1892. Six or seven years previously Dr. Hemminger had discovered an intra-uterine growth, the lower portion of which later was found to be projecting from the dilated os, giving rise to pain and hemorrhage. Efforts to remove the growth by the ecraseur were made by Dr. Hemminger, but, owing to its extensive internal attachment and great vascularity, only the projecting parts were removed. When the case was admitted to the Sanatorium the tumor was nearly the size of the adult head, the upper limit being even with the navel. The mass was symmetrical in shape, soft and semi-fluctuating. Examination showed the os fully dilated, through which projected a portion of the tumor the size of the fetal head. Around this projecting mass several fingers could be swept, showing freedom from adhesion to the uterus for three inches anteriorly and about six inches posteriorly. The mass was evidently a vasculo-cystic fibroid situated within the cavity of the uterus and attached to the uterine walls throughout three-quarters of its periphery. It was spongy, but very tough, bled easily, and gave rise to a copious watery leucorrhea. The conditions presented by this growth, particularly its cystic degeneration, absolutely contra-indicated the ordinary Apostoli treatment of fibroids on account of the danger of producing sepsis. I accordingly attempted its removal by morecellement, using the scissors, dull scalpel and fingers, but was compelled to desist, owing to the frightful hemorrhage. In this dilemma the possibilities of localized destructive electrolysis occurred to me, and it was begun by the use of a bipolar instrument having four prongs, two to each pole. These prongs were buried in the projecting portion of the tumor, and 700 millamperes turned on for six minutes. This dissolved quite a hole in the morbid tissues, making a spot too hot for the finger. The procedure was repeated daily as fresh portions of the

growth were pressed down by the contracting uterus, without hemorrhage or marked discomfort, the possibility of sepsis being guarded against by a continuous douche for an hour or more after each application. Three months were consumed in the eradication of the tumor in this way, though it doubtless could be done in a second case in a third of the time, the final examination showing nothing but a roughened spot on the anterior wall of the contracted uterus. External measurements now showed the upper limit of the uterus two and one-half inches below the navel. The cavity was capacious.

A letter from Dr. Bixler dated February 26, 1894, stated that the patient was quite restored to health, complaining only of prolapse of the vaginal walls, the latter doubtless due to the descent into the pelvis of a uterus that had so long been within the abdomen. The cavity was still large, and there was some thickening of the walls on both the right and left of the uterus. The os would only admit the first joint of the finger.

In November, 1894, two years after the patient's admission, her husband called and reported her as in good health.

Case 2. Sarcoma of tonsil and soft palate cured by local electrolysis, followed by zinc-amalgam cataphoresis.—W. H. L., blacksmith, aged 38 years, was also referred to me by Dr. Hemminger, February 17, 1893. Five years before he suffered from an abscess of the ear. Two years before being seen by me the left tonsil was found to be the seat of a tumor. He had recently been sent to the hospital of the University of Pennsylvania, where, he says, malignancy was diagnosed and an operation proposed, which he declined.

A tumor about the size of a goose egg filled the pharynx, involving the tonsil and soft palate, and threatening suffocation. Liquids could be swallowed with much difficulty.

The patient was placed on monopolar negative punctures, 30 to 60 milliamperes, daily. But little progress being apparent at the end of a week the parts were cocaineized and

subjected to bipolar local electrolysis with from 200 to 350 milliamperes, on two occasions. The separation of the eschar that resulted was accompanied by considerable pain and reaction, but as the place healed it was found that but little of the tumor remained. He did not return for further treatment until more than a year had elapsed, during which he seemed to be well. At this time, however, a renewal of the growth occurred, and it was about the size of a peachstone when he was readmitted to the Howard Hospital for further treatment. During this second treatment zinc-amalgam cataphoresis was mainly employed, the treatment lasting six weeks and being carried deeply into the base of the growth. A complete cure resulted, and at an examination of the parts six months later a healthy scar only was to be seen.

Case 3. Inoperable carcinoma of the groin greatly relieved by zinc amalgam cataphoresis; death from erosion of femoral artery and gangrene—Colonel H., aged 62 years, was sent to me by Dr. A. W. Knox, of Raleigh, N. C., in the summer of 1893. One year before he had noticed a lump in the left groin. On admission to the Sanatorium the tumor was the size of a large walnut, of a bluish color, and firmly attached by a broad base to the deeper parts of the thigh. It was situated just below Poupart's ligament and lay immediately over the femoral artery and vein, and was apparently attached to the latter, though the exact location of the artery was uncertain owing to the general induration.

At the patient's request it was decided to make a tentative use of electricity. The central and projecting portion was accordingly destroyed by local electrolysis, making a slight cavity, into which a solution of cocaine was poured. Into this the blunt amalgamated zinc was pressed and daily applications of the cataphoresis made, with currents averaging 150 milliamperes. The immediate effect of the application was to whiten the edge of the growth in contact with the electrode, the whitened coating peeling off later. The

indurated ring and base that now represented the growth was about three inches wide. Under constant applications the whole of this was gradually destroyed and replaced by healthy granulations, except the centre of the base, where the close proximity of the large artery rendered the applications unwise. At the end of three months the diseased area had been contracted to the size of a five-cent piece, but this was a deep cavity extending down to the great vessels, where it was thought to be unsafe to apply the current. The patient had increased 20 pounds in weight, and though brought to the Sanatorium on a stretcher, was now able to walk a half mile or more. During the continuance of this improved condition, however, the artery suddenly gave way one day at the bottom of the untreated spot. Drs. Thomas S. K. and T. G. Morton were called in and tied both artery and vein, which were found thoroughly infiltrated with cancerous material for some distance upward into the abdomen. Gangrene of the limb supervened, followed by death two weeks later.

An estimate of the value of the method in these three cases must be comparative, as cases similar to each are usually subjected to other methods, removal with the knife being the favorite. Hysterectomy in the first case would, of course, have involved removal of the ovaries also. Both this and removal of the uterus itself were avoided entirely, no natural structures being even injured, and the time required in the treatment was probably not longer than that necessary to recover from the effects of abdominal section. In the second case the bloodless removal of a sarcoma of the palate was followed by a treatment that I hope will render the patient less liable to a return of the disease. The third case was, of course, a failure to cure or to preserve life, yet it is thought that life was prolonged by the very evident curtailment of the growth and improvement of health. Comparisons were hardly possible, however, as an operation had been refused by one surgeon as useless.

BOOKS AND PAMPHLETS RECEIVED.

THE COMPLETE METHOD OF OPERATION IN CASES OF CANCER OF THE BREAST. By Dr. A. C. Bernays, St. Louis, Mo. Reprint from the *Courier of Medicine*, January, 1895.

A CASE OF FRACTURE OF THE THYROID CARTILAGE—RECOVERY WITHOUT TRACHEOTOMY. By Thomas B. Eastman, A. B., M. D., Indianapolis, Ind. Reprinted from the *Journal of the American Medical Association*, February 2, 1895.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION AT ITS EIGHTEENTH ANNUAL MEETING, HELD AT WASHINGTON, D. C., MAY, 1894.

OPHTHALMIA NEONATORUM. By C. A. Veasey, M. D. Reprint from the *Medical News*, February 23, 1895.

A CASE OF FRACTURE OF THE THYROID CARTILAGE—RECOVERY WITHOUT TRACHEOTOMY. By Thomas B. Eastman, A. B., M. D., Indianapolis, Ind. Reprinted from the *Journal of the American Medical Association*, February 2, 1895.

HORN EPI-THELIUM OR SUMMER GRANULATIONS—ITS RELATION TO CONJUNCTIVITIS TRACHOMATOSA; IMPRACTICABILITY OF TREATMENT BY EXPRESSION. By Jos. E. Willets, M. D., of Pittsburg, Pa. Reprint from the *Medical News*, November 4, 1893.

THE HALO, OR RAINBOW SYMPTOM IN GLAUCOMA. By Joseph E. Willets, M. D., Pittsburg, Pa. Reprinted from *Annals of Ophthalmology and Otology*, Vol. IV, No. 1, January, 1895.

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SIGNIFICANCE OF SPRAINS.

Many times the practitioner is besought to prescribe for "sprains." Perhaps, some member of the family, or a friend, has met with an accident of an apparently trivial character, when the doctor is requested to send a recipe, or give directions, for treatment.

As a rule, the injury may be an unimportant one, and simple remedies may suffice; nevertheless, it would be well if practitioners would refuse to ever prescribe for any description of injury or malady unless he sees the patient. And in no class of cases should he deviate from this custom with greater reluctance than in cases of so-called sprains.

In young children, the bones of the shoulder and elbow are easily dislocated, and may be regarded as only sprains. In the adult, pints of liniments and various salves may be employed, in vain, on what are at first supposed as only sprains, but later turn out as Colle's fracture, fractures at the ankle or elbow joint. Not long since a case was observed

by the writer in which, for weeks, a woman bathed and bandaged what she supposed was a sprained elbow, but which was found to be a complete forward dislocation later; and was then reduced, only with much difficulty, after the arm had wasted and organic changes had set in over the luxated joint.

It should be always borne in mind that there are important nerve and vascular trunks, which pass over the movable segmentations of a limb, and that undue tension of them or laceration, in a wrench or twist of the limb, may lead to serious consequences if not early discovered. Dr. William B. Outten, of St. Louis, not long since published a highly valuable contribution on "Entasis," which should be read by all whose practice often brings to deal with joint traumas, and the classic brochure of Raymond, of Paris, on "Arrachement," is of the greatest value in this connection.

Let one always examine a joint, than rather make "a shot-gun" diagnosis, and later have to face a jury for his delinquency, as a doctor last year had to do in New York, who, through motives of delicacy, made a chance diagnosis, through a lady's petticoats, and prescribed a lotion for what subsequently turned out to be a fractured patella.

IS A TENDENCY TO DIPHTHERIA AN INHERITED CONDITION?

Doubtless most physicians have observed, in epidemics of diphtheria, a tendency among certain families to contract the disease, while other families, seemingly to be equally exposed to the infectious element, exhibit remarkable immunity.

Now that the advent of horse-serum, in the treatment of diphtheria, has rendered conscientious reports concerning the diagnosis more important, is it not well to inquire into the natural immunity the human system may exhibit when in contact with the infecting element of diphtheria?

We note the horse is not prone to suffer from diphtheria. Why? It is

assumed that an agent exists in the blood of the hourse which renders the diphtheria poison inert. Is this any the less true of blood in certain of the human species? In other words, we often see croup, spasmodic, membranous and diphtheritic, running in certain families from generation to generation.

Referring to the March 9 number of "The Times and Register," page 191, it will be noted that Revilliod, a French observer, has intimated that there exists a family predisposition to diphtheria, and that often it is found that this condition is dependent upon a family history of tuberculosis.

So far as our own observation goes we cannot regard the connection between the two diseases in any other light than that of mere coincidence, but, that diphtheria may have a family predisposition of its own we have ample clinical evidence.

We would be glad to receive from our subscribers any personal observations they may chance to make along this line, and trust thereby considerable new light may be thrown on the etiology of diphtheria. If observers will kindly write us in such a manner that we can publish the same we shall be glad to do so.

PROSTATIC HYPERTROPHY TREATED BY CASTRATION.

Lutken (Deut. med. Woch., January 31, 1895) relates the following successful case: A man, aged 65, had difficulty in micturition for several years past. The catheter had now to be used some seven or eight times a day, and recently this had been accompanied by much pain and occasionally by the passing of some clotted blood. The author felt per rectum in the region of the prostate a swelling of the size of a hen's egg. As no improvement occurred, castration was suggested and agreed to. Ten days after the operation the left half of the prostate was smaller. A month later this left half could hardly be felt, and the right half was about the size of a walnut. Four months later no distinct enlargement of the prostate could be ascertained.

Immediately after the operation the catheter could be used less frequently, and in 10 days' time discarded altogether. Five months after the operation the patient was perfectly well, and could pass a good-sized stream of water. The author thinks that this operation is preferable to others in use, and even to regular catheterism. No living spermatozoa could be found in the testes, so that this case speaks against the view that the organs must be functionally active to get shrinking after castration.

AN EFFECTIVE REMEDY FOR GOUT.

Piperazine has now been sufficiently tried to warrant the opinion that it should occupy a prominent place in the therapeutics of the uric acid diathesis, especially in gout and renal lithiasis. In cases of acute gout it relieves the pains and other discomfort, and by keeping the uric acid in the blood in a soluble state and favoring its elimination from the system it prevents recurrence of the attacks. In the chronic form of the disease it has been found an excellent absorbefacient, causing absorption of the uratic deposits in the joints and other tissues of the body, and frequently effecting a cure. A number of cases of renal lithiasis are on record in which before resorting to surgical interference Piperazine was given a trial, with the result that the calculus was dissolved and the operation could be dispensed with. As a solvent for uric acid calculi Piperazine has the advantage of not only dissolving the outer layers, but also the albuminous nucleus, thus causing their complete disintegration. It is, however, of no service in renal colic due to concretions of oxalates. Finally in that ill-defined class of cases known as lithemia the systematic administration of this remedy affords great relief by determining a more rapid elimination of uric acid from the system, as shown by a diminution of urinary gravel. Piperazine-Bayer prepared by the Farbenfabriken of Elberfeld can be obtained in one-half and one-ounce vials or in

tablets of 16 grains each, which afford a convenient method of administration, as each tablet is equal to about the average daily dose of the remedy.

GLYCERO-PHOSPHATES.

The dose for Glycerio-Phosphate of Lime for adults is 15 to 45 grains per day. Glycerio-Phosphate of Lime and Glycerio-Phosphate of Iron in combination have given excellent results in the treatment of scrofula in children. Both salts can be dissolved in lukewarm milk. Hot milk or other hot liquids should not be used. The preparations can also be given in powder form.

The solutions of the Glycerio-Phosphate of Lime in the proportion of 1 to 30 are sometimes incomplete. The addition of citric acid, one-tenth the quantity of salt, facilitates the solution and promptly renders the mixtures limpid.

The Calcium Salt is especially indicated for administration by mouth, while the Sodium and Potassium Salts, which are of a syrupy consistency, are more readily soluble and therefore better for hypodermic injections.

The watery solutions of the Glycerio-Phosphates are not staple, but decompose in a short time.

SURGERY OF THE STOMACH.

Rosenheim, since his latest communication, had an opportunity to operate six times, for cancer and stenosis of the stomach.

One patient was a woman, 49 years old, coming to the clinic with symptoms of gastric cachexia. An examination of the stomach's contents demonstrated the absence of H. Cl and the presence of a large quantity of lactic acid.

Accordingly, a diagnosis of cancer was made, though on palpation the indications were negative. On laparotomy and exploration nothing was found but a small ulcer at the lesser curvature, with adhesions of the stomach to the liver. Boas' sign, then, for gastric cancer is not definite nor reliable.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

OSTEOMA OF THE ADDUCTORS.

M. Sourris presented a young soldier, of 21 years, formerly a farmer. He was ordered to join the huzzars, in entering the army, though he never before mounted a horse. One month after his entrance he observed, one evening, after a long day in the saddle, that his left thigh was painful and stiff. But he continued on duty some time longer, when he consulted the troop surgeon. On examination, the integuments on the inner side of the thigh were ecchymosed, the muscles hard and painful, under which was a well-defined triangular mass, the summit of which was adherent to the ramus of the pubis. Under massage treatment the tumefaction in the surface parts had diminished; but a tumor of an osseous consistence remained. The neoplasm measured 0.06 to 0.07 centimetres, and presented all the characters of a cavalier's osteoma.

M. Coyne recalled the cases formerly reported by MM. Ferron and Sourris, in which, after extirpation, a cure was speedily wrought. On histological examination of the pathological pieces nothing other than connective-tissue elements were found.—Soc. d'Anatomie et de Physiologie de Bordeaux, 21 Jan., '95.

DOUBLE ATROPHY OF THE TESTICLES.

M. Guerin presented a young tuberculous man of 20 years. His visage had an infantile expression, his cheeks were rosy. There was no beard. This was in contrast with his height and other bodily development.

On examination, two testes, no larger than beans, were found. The penis was very small. The pubis was covered with hair. The larynx was ample and voice normal. He said that his testicles were never larger, and that his parents had noticed it. He never had firm erections, nor emissions. His voice became mascu-

line at 17 years, at which time the pubic hair commenced to grow. Parotids were developed for his age. There was no history of syphilis.

M. Aronson remarked that this was an ideal case for the employment of injections, with testicular suck. (*ibid*).

TORSION OF THE SIGMOID FLEXURE OF THE COLON; ENORMOUS DILATATION, OBSTRUCTION, LAPA- ROTOMY—DEATH.

A pathological specimen was presented by M. Adenot, removed from a man 35 years old. The cause of obstruction was torsion of the sigmoid flexure of the colon, the bowel having positively attained elephantine proportions.

The patient suffered for years from digestive troubles, characterized by dyspepsia and constipation. After ailing a brief time, he noticed a fullness in his left groin. Finally obstruction developed, with symptoms of acute occlusion. His general condition was so serious, when operation was begun, that it was feared he would sink under the anesthetic.

The operation was extremely difficult. On opening the abdomen a huge mass rolled into the wound, which, at first, could not be recognized. This proved to be the sigmoid flexure, which was larger than the entire colon. At the point where the rectum passed out through the peritoneum there was torsion of the bowel. This was easily unfolded, when, by moderate pressure, its contents were pressed out through the anus, and from 15 to 20 litres—five gallons—solid and liquid feces discharged. The circumference of the distended bowel was about 45 centimetres—18 inches. The patient succumbed the night following operation. In this case, post-mortem examination showed that the accident followed in consequence of an exaggeration of the meso-colon, which permitted the bowel to turn over on its own axis, and thus close its own lumen. Trasctour, Glenard and Koenig have reported similar cases. —*Le Mercredi Méd.*, 94, No. 8.

SYPHILITIC INDURATION OF THE CORPUS CAVERNOSUM.

This subject is not a new one, for the lesion has been recognized for a long time; but there has been some dispute as to its syphilitic origin in all cases. Professor Audry, of the Hotel Dieu, at Toulouse, has lately again directed attention to it. Tuffier, in *Annales des Organes Genito-Urin.*, in 1885, and Mauriac, in *Gaz. Heb. de Med. et de Chirurg.*, have each given it extended notice.

The able theses of Legalchier Baron, Paris, 1886; Ricord, in *Gaz. des Hop.*, 1847; Nelaton, *Traite de Path. Ex.*; Dumarquay, *Des Affections Chirurg. de Penis*, 1859, and at a more recent period, Fournier, Verneuil and Duploy have related cases. In all, 39 observations have been made.

Some authors found it associated with a diabetic state, where evidence of syphilis was not proven.

In 1879 Delafosse described a case of this penile strabismus, which seemed to have been produced by rheumatism. The penis was much enlarged and hooked over, towards the abdomen. He never had syphilis, nor had been injured. Both parents had died of chronic arthritis. He, however, could copulate, though the organ so crowded forward in walking that he was obliged to wear an apparatus to confine it in place. Etienne (*Annales de la Polyclinique*, Avril, '93) has recorded three cases of this induration, in the non-syphilitic rheumatism, varying in age from 33 to 64 years.

Delabore had witnessed three cases, which progressed on to ossification of the penis. According to this author penile distortion might follow traumatism, rheumatism or syphilis. It is inflammatory when occurring in the course of gonorrhea. In syphilis, the ground-work is gummatous infiltration of the corpus cavernosum in peri-urethral tissues. As it passes out of this stage dense, fibrous induration succeeds. Spaach saw an instance of this lesion in a celibate. He had a tumor encircling the penis, about an inch from the pubis. It was about the size of a haricot, and on erection of the organ

produced a short lateral curve. Van Buren had seen five similar cases, which he designated circumscribed, chronic inflammation of the penis. Two of his patients had suffered from syphilis.

Most modern authors are agreed that gout and rheumatism are predisposing factors in the etiology, though in nearly all cases we will find either inherited or acquired syphilis the underlying cause. This is rather demonstrated by therapeutic proof than otherwise, for we will discover, in the general run of cases, by local mercuric friction with the iodides internally a relief or cure will supervene.—*Le Mercredi-Med.*, 20 Feb., 1895.

METHYL-BLUE AND EPITHELIOMA.

Dr. Darier, in a communication to the Academy of Medicine of Paris, reports the success of Dr. Mosetig, of Vienna, with the methyl-blue treatment of cancers, though M. Dentu has not with methyl-blue obtained cures. The author relates a series of cancerous tumors of the face cured rapidly by the daily application of a 20 per cent. solution of the drug. He considers the drug to have a specific action on cancer. A daily touching of the sore with the solution will effect a cure, but the good result will be more quickly produced by cauterizing the carcinoma with chromic acid or the galvano-cautery. For deep-seated carcinoma he recommends the solution to be hypodermically injected. Tumors whose surface is broken should be covered by a healthy skin-flap on or about the 15th or 20th day after treatment commenced. Dr. Darier presented to the academy a patient who had had epithelioma of the left eye, and was then quite free of the disease, its site being marked by a cicatrix. This was the ninth case the doctor had thus treated, and with success in all.—*Les Nouveaux Remedes*.

OUTERBRIDGE'S OPERATION FOR HEMORRHOIDS.

For practical purposes in doing this operation we may divide the op-

eration into two varieties: (1) Cases with only external tabs or with the more frequent arrangement of three tumor-like masses just inside the sphincter ani, usually considered most favorable for clamp and cautery or ligature. These may be dealt with in the following way: Grasp with a pair of thumb forceps, or insert the point of a tenaculum into the most prominent portion of the "tab" or tumor. Make enough traction at right angles to the gut to clearly define the mass. Cut off the mass with curved scissors pressed well toward the muscle. The edges of the raw surface are united with continuous catgut sutures. (2) Where the whole "hemorrhoidal inch" is dilated thoroughly dilate the sphincter, then cut away a strip of mucous membrane and hemorrhoidal tissue down to the muscle, following the muco-cutaneous line all around the lumen. If external hemorrhoids are also present, in order to prevent recurrence, a strip of skin down to the sphincter ani is removed in the same way. The free edges of the skin and mucous membrane are now brought together with a continuous catgut suture. Hemorrhage is slight and easily controlled.—*Mathews' Medical Quarterly*.

A MALPRACTICE SUIT.

An interesting malpractice suit, lately held in Ireland and published in the *Medical Times and Hospital Gazette* (November 17, 1894):

Dr. Thomas O'Brien was the defendant in the City of Cork assizes. The plaintiff was a young, able-bodied groom who had been thrown from a horse and sustained a fracture of the clavicle. Soon after dressings had been applied gangrene of the arm set in, and a shoulder-joint amputation had to be performed. Drs. Walsh and Hueston, of that city, on the stand stated that in their opinion the gangrene supervened in consequence of too tight bandaging; while Surgeon Wheeler, of Dublin, after hearing the testimony, testified that he believed that the gangrene was due to an injury of the subclavian vein at the time of the accident. Mr. Nyles, of the Richmond Hos-

pital, employed by the plaintiff, said that in the whole history of surgery rupture of the subclavian vein as a result of fracture had never occurred.

The plaintiff sued for £1000, and it appears that the jury was satisfied that the doctor was blamable, for they brought in a verdict against him for £175 damages.—Philadelphia Medical and Surgical Reporter.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

HOW TO DISGUISE THE TASTE OF COD LIVER OIL.

To disguise the taste of cod liver oil is an advantage which may be obtained by the following plan:

Four hundred grammes of oil are mixed with 20 of freshly roasted and ground coffee and 10 of animal charcoal. The whole is kept in a water bath at 140 degrees F. for 15 minutes in a stoppered flask. It is shaken occasionally for two or three days and then filtered through paper. The oil is limpid and light colored, and tastes and smells strongly of coffee.

BICARBONATE OF SODA IN THE TREATMENT OF GASTRIC DYSPEPSIA.

Administration before meals doses of 50 cgms. to 1 grmme. are without apparent action; with 3 grms., given one hour before meals an excitation of the movements and of the gastric secretion occur.

In hyperacidity less is required; in hyperacidity large doses are necessary.

Administration after meals. The alkaline salt saturates the acid of the gastric juice and arrests digestion. This action is, however, transitory, and excitation succeeds depression. The rapidity with which this condition comes on depends on the size of the dose. With very large doses it is wanting, because the H. Cl although furnished in excess in the beginning cannot be supplied at the end of digestion. Such are the immediate results. According to some authors there is always

sooner or later a phase of depression.

The conclusions for treatment to be drawn from these facts are as follows:

In hyperacidity the bicarbonate should be given in small doses a half hour before meals to excite the stomach. It is evident that this treatment is only applicable to cases of functional hyperacidity susceptible of reaction and not where there is atrophy of the mucous membrane. The author advises the giving of small doses every two days.

In hyperacidity the soda should be given after the meal during the whole process of digestion in large quantities, in broken doses of two grammes each. Here the action desired is the depressant action of the bicarbonate.—Rev. de Therap.

HEMORRHAGE INTO THE ANTRUM OVALE.

Hemorrhages of the antrum ovale resemble in most of their symptoms those seen in cervical hemorrhage; a sign more particular to the former is the production in the paralyzed limbs of phenomena of Jacksonian epilepsy. These do not belong exclusively to this location, for brain tumor, cerebral syphilis, hemorrhagic-pachymeningitis may also produce them. Cervical hemorrhages themselves sometimes determine in the paralyzed side muscle twitching, but on the one hand it is easy in ordinary cases to differentiate hemorrhage of the antrum ovale from preceding affections which frequently determine epilepsy, and on the other hand this phenomenon is really rare in cervical hemorrhage. It is, therefore, a symptom of great weight in the diagnosis of hemorrhage into the antrum ovale.

E. W. B.

OCYTOCIC ACTION OF SALICYLATE OF SODA AND SALICYLIC ACID.—VINEBERG.

The salicylates are so frequently prescribed that it is useful to be thoroughly acquainted with their therapeutic action. They possess a property which is not commonly known—namely, their action on the female generative organs. This action is very energetic.

Schuchart has remarked that under the influence of the salicylates the menses become more abundant and last longer; he has also observed four cases of abortion which he attributed to the drug employed for another purpose. Blinz produced abortion in eight guinea pigs experimented on with soda salicylate. The author reports two cases in support of this theory.

1. A woman was attacked on the fourth day after a normal labor with acute articular rheumatism. The lochia were normal before the attack. Salicylate soda was administered every two hours for some days. On the second day a very abundant hemorrhage occurred, although examination proved that involution was going on properly.

During the three weeks in which she took the drug more or less severe hemorrhages occurred almost every day. As soon as the drug was stopped the bleeding stopped; involution went on without any difficulty.

2. A girl, anemic and irregular, had salicylate of soda given for an attack of acute tonsillitis. In 12 days the menses appeared, a week before their time.

Conclusions—Salicylates may be advantageously given in tardy and insufficient menstruation. They should not be given to pregnant women predisposed to abortion, nor to those suffering from meno or metrorrhagia. If given during pregnancy its action should be carefully watched.—Gaze. de Gynecol.

THE FLACCID BELLY OF INFANCY.

Marfan (Rev. des Mal. de l'Enf., February, 1895) observes that infants present distension of the abdomen under two forms—the one flatulent and tense, the other flaccid. In an infant who suffers from several attacks of dyspepsia with flatulent distension ending in diarrhea, the abdominal parietes are apt to be permanently weakened, and then the condition of flaccid abdomen is produced. The condition is not a consequence, may even be an antecedent, of rickets, but is of the type and form so often seen in rickets and of-

ten called the "frog's belly." The abdomen is soft, tympanitic on percussion, but not to an extreme degree; palpation may provoke gurgling. The linea alba is often widened, an umbilical hernia is frequent; inguinal hernia and prolapse of the rectum are also common. The infant is normally big-bellied, but the bigness is mainly in front; in the child with flaccid enlargement of the belly the enlargement is in great part lateral, as may be well seen by looking at the trunk from behind; it also encroaches upwards, and may even protrude very notably immediately below the thorax, so as to make an angle with the ribs. The enlargement is clearly not due to flatulent distension, and Marfan has made a series of post-mortem examinations and measurements of the intestine. As a rule, the colon is found to be distended, lying over and partially concealing the stomach, which is also distended. The liver may or may not be enlarged, the spleen seldom. The distension of the colon and stomach may also be absent in typical cases. The enlargement of the abdomen is, in Marfan's opinion, really due to hypertrophic elongation of the intestine. In the new-born infant the small intestine is about five times the total length of the body; the large about equal to the length of the body; so that the total length of the intestine is about six times that of the body. The length of the intestine increases rapidly during the first two months of life, so that it becomes about seven or eight times the length of the body (small intestine six times, large, rather longer than the body). Measurement of the intestine in infants who have died after presenting the condition of flaccid belly showed that the intestine was longer than natural. In every one of 16 cases examined by Marfan the total length of the intestine was from nine to 12 times that of the body. Considerable elongation was observed also in certain of the cases of tympanitic distension. The elongation of the intestine is associated with a form of gastro-enteritis which requires further study.

Gynecology and Obstetrics.

THE ORIGIN OF PAPILLOMA-TOUS CYSTS.

Kossmann (Manatschrift f. Geburtssch. u. Gynak., February, 1895) believes that there is no truth in the current theory that papillomatous cysts of the ovary and broad ligament are developed from the parovarium. He goes further than Whitridge Williams, who has stated his opinion that these cysts are sometimes developed from elements belonging to the Fallopian tube itself. Williams has detected tube-like involutions in ovarian tissue which he actually traced to tubal fimbriae.

BATHS IN THE TREATMENT OF STERILITY.

Kisch (Therap. Monats., January, 1895) ascribes sterility in the female either to the result of some form of pelvic peritonitis, to constitutional affections, to chronic local inflammations or catarrhs or dyspareunia. He then describes the measures and treatments likely to alleviate the condition. Ordinary baths, partial or complete, douches, compresses, etc., are able to act on inflammatory deposits together with mineral waters, which increase the secretion of the intestinal tract. The baths of Elster, Franzensbad and Marienbad endowed with ferruginous properties, or the saline baths of Kreuznach, etc., are specially indicated. Sterility dependent on anemia should be treated at places like Pyrmont, Schwalbach, Spa, etc. For catarrhal conditions, alkaline springs, such as those of Ems, Vichy, etc., should be resorted to; or, should the secretion be excessive, more benefit might be derived from the astringent waters containing sulphate of iron, namely, Alexisbad, Levico, etc. Excessive corpulence as a cause of sterility should be treated at Marienbad, Tarasp, Friedrichshall or Pullna. The results of vaginismus may be alleviated by the warm springs of Schlangenbad, Wildbad, etc. Finally dyspareunia, an important cause in

the author's estimation, may be improved by baths or douches of water containing carbonic acid, as also by residence at an altitude, or by the sea.

ABORTION INDUCED INSTRUMENTALLY BY THE WOMAN HERSELF.

Goenner reports a case of a woman, 37 years old, who had given birth to four children at term, and induced an abortion, without assistance, three times. Believing herself to be pregnant, she inserted an elastic catheter into the vagina. The operation caused considerable pain, and on withdrawing the catheter some hemorrhage occurred. It was discovered that a part of the instrument remained behind. An attack of peritonitis followed, and abortion occurred five days after the use of the catheter. Six days later, during defecation, the patient was seized with severe pain in the lower part of the abdomen and in the ileo-cecal region. No trace of the retained piece of catheter could be found by palpation and operative procedures were considered, when the missing fragment was passed in a fecal discharge. The vagina did not present any punctured wound. The patient eventually recovered.—Boston Medical and Surgical Journal.

A CONTRIBUTION TO THE DIAGNOSIS AND THERAPY OF CARCINOMA OF THE FUNDUS UTERI.

Calderini (Berliner klinische Wochenschrift, No. 15, 1894), in a series of 150 cases of carcinoma of the uterus, was able to diagnose eight (where the cervix was perfectly normal) as new growths of the fundus uteri. Upon six of the cases hysterectomy was performed, one was operated upon elsewhere, and the other refused operation. One case died as a result of the operation, and another from a return of the disease with metastasis. The remaining four are still living and healthy. The woman who refused operation died with metastasis to the peritoneum. The histories of three

other cases are: The first was diagnosed through microscopical examination as non-malignant adenomatous disease of the mucosa, and the second and third as rapidly-developing sarcoma. All three cases gave metastasis to other organs. The last cases show the result of delayed diagnosis. These cases prove how very important the microscopical examination of curetted tissue from the uterus is, and that one should not be satisfied with the diagnosis of fungoid hemorrhagic endometritis. If the diagnosis of a malignant new growth is definitely made, provided the uterus is still movable, a complete hysterectomy is indicated. In doubtful cases Caledrini advises that, after a short time, the uterus be curetted again and the removed tissue carefully examined microscopically. In cases of simple adenoma, where the epithelial cells are atypical, or there is in places a double row of epithelial cells and they show active karyokinesis, the radial operation is indicated.

Therapeutics.

IN CHARGE OF

DR. LOUIS LEWIS, Philadelphia.

A CHEMICAL ANTIDOTE FOR CHORAL POISONING.

The Glasgow Medical Journal for February publishes an article on this subject by Dr. John Dougall, of Glasgow. When the choral was first used, says the author, its hypnotic action was thought to be solely due to the generation of chloroform from it by the alkalies of the blood; its effects on the body generally were, and indeed still are, held as almost identical with those produced by chloroform. This view, however, he says, has been disputed on the grounds that the quantity of chloroform which a full dose of chloral is capable of producing is quite inadequate to cause the hypnosis and anesthesia that have been observed, also that the greater part of the chloral is exhaled from the lungs unchanged, and that small quantities of it may

be found in the urine, but no chloroform. Whatever facts or theories, however, says Dr. Dougall, there may be regarding the manner of the hypnotic and anesthetic action of chloral, there can be no doubt about its chemical composition and affinities, and, in particular, that it is almost at once decomposed, at and above 60 degrees Fahrenheit, outside of the body in an alcoholic solution of potash into formate of potassium and chloroform, and, as the author has proved by trial, somewhat less quickly in an aqueous solution of potash.

Assuming, he said, that a person has taken a poisonous dose of chloral, say 80 grains, and that there could with safety be given the chemical antidote, 27 grains of potash, this amount being the quantity by weight in the formula required to decompose 80 grains of chloral—in such a case, says the author, there are strong a priori grounds for assuming that in about 15 minutes the chloral in the system would be entirely changed into formate of potassium and chloroform, or, at least, that so much of it would be decomposed that the residue would be harmless. But would not the potash, he asks, or the amount of its formate, or of the chloroform thus produced, be as lethal as the chloral? Undoubtedly 27 grains of potash swallowed at once, even much diluted, would cause serious symptoms. But even if half that quantity was given in divided doses—say seven grains every hour—in warm milk, gruel or barley-water, it seems very probable that by this means no serious irritation of the gastro-intestinal tract would be the result, and that in a short time so much of the chloral would be decomposed as to render the rest at least non-lethal.

The liquor potassae of the British Pharmacopoeia, says Dr. Dougall, contains about a grain of potash in 16 minims, and the maximum dose stated is 60 minims. Hence, he says, to give seven grains of potash is equal to giving 112 minims of liquor potassae. He thinks it may be assumed that this quantity, highly diluted, might be given without fear of causing unfavorable symptoms. By this

means 20 grains of the chloral would soon be decomposed, thereby neutralizing its lethal power to a certain degree, if the potash is given before the patient is too far gone to be afforded relief by this means; then, if in an hour after a similar dose of potash is given in the same way, this would reduce the chloral in the system to 40 grains, a quantity quite within the bounds of safety for an adult, provided there is no heart trouble.

Dr. Dougall says that he has proved by experiment what has been stated by others—namely, that the carbonates and bicarbonates of potassium and of sodium also decompose chloral; but their action, particularly that of the bicarbonates, is very slow, and, besides, a much larger quantity than of potash is required, also a heat much above that of the body. With regard to the action of formate of potassium, it merely causes a peculiar eruption of the skin, which soon disappears when the use of the drug is stopped. This eruption is well known to habitual chloral-takers, and seems to prove that chloral is decomposed in the blood as stated.

With regard to the probable effects of the chloroform which would be generated by the decomposition of 40 grains of chloral, the author finds that this quantity of chloral requires 13.5 grains of potash for its decomposition, which results in the production of 28.5 grains of chloroform, equal to 21.5 minims. As much larger amounts of chloroform (from half an ounce to four ounces) have been swallowed and recovery has followed, and as it is likely that the greater part of that which is generated in the blood by the decomposition of the chloral is exhaled as fast as it is produced, Dr. Dougall thinks that nothing serious need be feared on this point.

INDIAN HEMP.

R. Cowan Lees, in the *British Medical Journal*, says: "It has always been difficult to understand why the resin of this plant should alone be recognized in the *British Pharmacopœia*, more especially when we find

it stated in works on the physiological action of this drug that in India several preparations are used by the natives to produce its stimulating and exhilarating effects, amongst which watery infusions are specially mentioned.

"During a short visit to India some years ago my attention was drawn to the fact that several modes of using the herb were employed by the natives—modes not capable of extracting much, if even any, of the resin. So far as I could observe, watery infusions were commonly used, but whether in combination with other substances or not I am not in a position to state. This fact, however, led me to try what benefits might be derived from the use of a preparation of the plant, not depending on the resin alone.

"Messrs. T. and H. Smith, who first obtained the resin in a state of comparative purity, state that 'it is a brown amorphous solid, burning with a bright white flame, and leaving no ash; powerful in its action when taken internally, and that two-thirds of a grain act as an active narcotic, whilst one grain produces complete intoxication;' but the question might be advisedly asked, Is it completely freed from its essential oil? As a matter of fact, it is found that when the extract is kept for some time it becomes hard and brittle, and less potent in its action, a circumstance which goes a long way to prove that such a condition is the result of loss of volatile oil from the resin, and pharmacists are advised to 'lay aside and not employ for medicinal use that which has become old.'

"We are told by Bently and Trimen that 'both Hindus and Mohammedans use this herb, either by smoking—with or without tobacco in combination with other substances—or by simple infusion in water.' Gunjah—guaza of our London market—has but a faint taste, with a peculiar but not unpleasant narcotic odor. These properties depend in a great measure on the volatile oil and resin. The latter some consider the more important constituent of the plant.

"In the watery infusion employed by the Hindus and Mohammedans as mentioned above, we can conceive

of little, if any, of the resin being dissolved and held in solution, whilst, on the other hand, much of the volatile oil might be dissolved by the water, together with other constituents of the plant. Dr. Personne regards the volatile oil as the sole active principle, and in proof of this he states that 'when the volatile oil is inhaled, a distinct sensation of shuddering with motor excitement, followed by prostration and syncope, is experienced.' Again, Dr. Preobraschensky has found a volatile alkaloid—most plentiful in the flowering tops—and which he considers somewhat similar in its action to nicotia or nicotine.

"Feeling somewhat satisfied that water was capable of dissolving at least a portion of this volatile oil, and knowing that watery infusions of the drug were used for intoxicating and stimulating purposes in India, I had prepared for me a strong aqueous extract of the flowering tops of the female plant of the usual strength of liquid extracts, and from its use I have obtained good and satisfactory results. It possesses the anodyne and soporific action generally ascribed to the resinous extract, although in a modified degree. It has the characteristic odor of the hemp, has a beautiful deep amber color, is miscible with water, and hence there is no difficulty in combining it with other liquids, and it presents no unseemly immiscible mixture repellent to a patient.

"*Liquor cannabis indicæ* in my experience gives all the beneficial effects without the drawbacks of the tincture, avoiding those extreme exhilarating conditions bordering on intoxication which are sometimes met with even when using a medium dose of the latter. It does not seem to interfere with the secretion of mucus from the bronchial glands—a circumstance which renders it superior to opium in those cases suitable for its use, whilst in pulmonary affections generally it acts most favorably as a soporific and anodyne.

"My greatest experience has been in the treatment of phthisis pulmonalis, and here I cannot speak of it too highly, for whilst it most perceptibly relieves the cough it aids the patient

by its stimulating and exhilarating qualities, supplying a remedial agent in a manner which in my opinion no other drug can so beneficially do. In indigestion with constipation, and also in many of the affections of children, especially where nervous symptoms are present, it has also done good service. I do not presume for one moment that it will displace opium is at present used it may be pain is a prominent symptom, but I feel sure that in many cases where opium it at present used it may be substituted with great advantage.

"The dose which I commonly use is half a fluid drachm for an adult, but it may be increased to a drachm in many cases, whilst for children corresponding doses to age may be adopted, though I have noticed that children are somewhat less susceptible to it than adults."

Ophthalmology.

IN CHARGE OF

DR. J. A. TENNEY, Boston, Mass.

A NEW OPERATION FOR GLAUCOMA.

George L. Walker, F. R. C. S., of Liverpool, presented a paper to the International Congress of Ophthalmology, held in Edinburg last summer, in which he described a new operation for chronic glaucoma.

He states the well-known fact that iridectomies are of doubtful utility in this disease, and he has long since abandoned them. He believes that the earlier successes that followed iridectomy were due to the cystoid cicatrices that often followed the operation, which were lamented by the surgeon. Mr. Walker's operation makes a fistula in the cornea, and is thus described in his own words:

"After cocainizing the globe, I snip with scissors, just behind the uppermost part of the cornea, a flap of conjunctiva about 1-16 in. wide by 3-16 in. long, turn this back, and then fixing the globe with forceps, I thrust through the sclero-corneal margin, close to the base of the flap, a nar-

row hinge, making an incision perpendicular to the plane of the iris, large enough to take in the flap. Then I withdraw the knife, letting out the aqueous; when it has ceased to flow I push the flap into the anterior chamber through the incision, and leave it there. An old worn-out canaliculus knife does this very well, and also serves for the subsequent probing which the fistula requires.

"The eye is bound up for 24 hours and then inspected. If the flap be found to have remained in the incision, the lids should be again closed for a short time, until it be thought advisable to expose the eye. Sometimes, owing to the incision having been made too large for the flap, the latter may be washed out, in which case it will have to be replaced, perhaps several times, before it will be permanently retained."

The raw surface of the flap unites to the adjacent edge of the corneal incision, and as the epithelial surface of the conjunctiva will not unite with the edge of the cornea, a fistula is made into the anterior chamber. This fistula needs probing.

He says he has kept eyes alive for the last four years that would otherwise have been lost. He claims that if it does not cure these cases it will at least retard the progress of the disease indefinitely.

CONVERGENT STRABISMUS.

Dr. Howard F. Hansell recently read a paper before the Section of Ophthalmology of the College of Physicians, in Philadelphia, in which he indorsed the view of Donders, that hypermetropia is the most prominent cause of convergent strabismus. He admits that other conditions are factors in the causation of squint, such as amblyopia, misplaced muscles, abnormal refraction, unbalanced strength of muscles, faulty innervation, etc.

He states that congenital amblyopia is associated with convergent strabismus in about 75 per cent. of all cases. Violet (*Archiv. d'Oph.*, vol. xx, p. 289), in an analysis of 150 cases of convergent squint, found 122 had amblyopia.

He holds that operations are only cosmetic. Parallel visual axes seldom exist after operations, and there is no incentive to binocular vision. The patient is accustomed to using the better eye, so that he suppresses the poorer vision of the other. He antagonizes the idea that amblyopia is caused by squint.

He makes the oft-repeated statement that 75 to 90 per cent. of squint cases have hypermetropia. Snell claims 95 per cent. Dr. Harlan quotes Valude (*Archiv. d'Oph.*, vol. x, No. 4), as teaching the true relation of hypermetropia to squint, saying that "Convergent squint does not depend upon ametropia alone, but that a neuropathic disposition is an important, sometimes the principal factor."

Dr. Hansell holds that the supranormal contraction of the ciliary muscle in hypermetropia communicates a stimulus to the nuclei in the floor of the fourth ventricle, and an order for corresponding contraction is sent out to all muscles supplied by the third nerve.

It is easy to repeat the teachings of a master like Donders without question, and to consider hypermetropia and internal squint as cause and effect when they are mere coincidences. Newton felt it necessary to make the colors of the solar spectrum correspond to the vocal scale, so he stretched six colors into seven. No one knows how long this notion of the spectrum will be taught. The corpuscular theory of light was held long after it would otherwise have been discarded, because it was upheld by the same authority.

Cold is an exciting cause of rheumatism, but not a primary cause. It will not excite the disease in all people. If the eyes tend toward convergence, hypermetropia, amblyopia, or anything that interferes with vision will increase the tendency. If they tend toward divergence, myopia will make them diverge more than they would otherwise.

It is in order to explain why the vast majority of hypermetropes do not squint; and why a very inconvenient number have exophoria to an extent that tries if it does not baffle the skill of the ophthalmic surgeon.

Miscellany.

BENEFIT SOCIETIES, CORK.

A special meeting of the members of the St. Luke's Mutual Benefit Society was held last week for the purpose of electing a medical officer in the room of Mr. Philip Lee, L. R. C. P. & S. Irel., who had resigned. There were four applicants for the appointment, three hailing from England, but only two put in an appearance. Mr. William McMath, M. B. Royal University, was appointed, this being the fourth society to which he has been elected. A resolution thanking Mr. Lee for his past services was adopted amid applause.—*Lancet*.

ONYCHOPHAGIA A SIGN OF DEGENERATION.

Dr. Berillon writes as follows: "As the result of an inquiry carried out in several schools, for both sexes, I am confirmed in the opinion which I have already expressed, namely that onychophagia, and habits of a similar order, are generally connected with degeneration. The frequency of onychophagia is very variable in different centres. In some schools not more than two or three children out of ten are addicted to nail-biting, but in others, and especially in the City of Paris, the proportion of onychophagians is often very considerable, amounting in the aggregate to upwards of a third of the total number of pupils that came under observation. A careful examination almost always brings to light the stigmata of degeneration. The children who indulge in the practice are commonly more puny than the others; and they frequently present cranial deformities, irregular teeth, abnormally placed and shaped ears, etc.

"It has been noted by many teachers that the subjects of onychophagia exhibit a well-marked antipathy towards physical exercises, and more especially towards games involving sustained efforts. They write badly, and in general are remarkably deficient as regards manual dexterity. Perseverance is never observable amongst them, and for the most part

they are unmanageable. In a word, when compared with other children of the same age they invariably manifest inferiority in some shape or form.

"All teachers agree that the pedagogical methods usually employed are quite unable to effect a cure. In the majority of cases this can only be obtained by the use of hypnotic suggestions. Ordinary suggestion, in the waking state, is only occasionally successful.

"The habit of nail-biting sometimes persists to an advanced age. In our own practice we have successfully treated an old man of 72, and a lady of 56, who from earliest infancy had been incessantly the victims of onychophagia."

(Doubtless M. Berillon is right in the main, but the gatherer is acquainted with a most brilliant and successful man who is, and has always been, an inveterate nail-biter.)
—*Provincial Medical Journal*.

CHOLERA IN CONSTANTINOPLE.

The cholera reports from Europe are beginning early this year. On February 8 a cablegram reported eleven cases of the disease in Constantinople, seven of which were among the Turkish troops. During the week following, there were sixty-one cases and twenty-nine deaths.

BLEACHING OF THE TONGUE UNDER PEROXIDE OF HYDROGEN ADMINISTERED MEDICINALLY.

A curious phenomenon, described by Sir Benjamin Ward Richardson, in the *Asclepiad*, No. 42, vol. 2, is observable in regard to the tongue when peroxide of hydrogen is administered for long periods in medicinal doses. The tongue under the administration becomes moist and of milky whiteness, the fur, as it is commonly called, becoming whiter than cream. At first I thought this appearance might be connected with disease, although to my eye it was novel; but it has recurred so steadily now for so many times after the peroxide administration there can be no doubt as to its being the effect of a definite cause. It has been most

manifested in cases of enteric fever, in which the medicine has been given in two-drachm doses of 10 volumes' strength, well diluted, every four or six hours for several days, and it is a good sign that the medicine is taking effect. No harm is indicated by the appearance, but it is a usual proof of a favorable condition with breath free of taint, and the teeth of sor-des. After the medicine is withdrawn the white condition clears off, in six or seven days, leaving a moist and clean surface.

SUBCUTANEOUS INJECTION OF OIL IN CASES OF STIFFENED JOINTS.

In two instances of stiffened joints where the inability to move the limb has appeared to arise from rigidity of the tendons and muscular sheaths, I have injected, subcutaneously, olive oil into the structures, and with some success. I find that a fluid drachm of oil can be injected around the knee joint without causing any after inflammation or discomfort. In one instance where the elbow was operated on in this way the patient, a young woman, obtained for the first time some degree of movement after six months' entire fixation from rigidity.—Dr. B. W. Richardson in the *Asclepiad*.

HEMATOPORPHYRIN IN NORMAL URINE.

Hematoporphyrin, which is sometimes excreted in large amount in the course of some diseases, has been shown to be sometimes present in normal urine. Garrod (*Journ. of Phys.*, December, 1894) gives the results of his observations on the urine of 20 normal individuals in good health. Both acid and alkaline extracts of hematoporphyrin were prepared and examined by the direct vision spectroscope. The presence of the two absorption spectra under the different conditions (acid and alkaline) confirmed the presence of hematoporphyrin, which was found in every one of the 20 cases. Garrod concludes that this substance is present normally in urine, but that it is sometimes in such small quantity as to escape detection.

THE PATHOLOGICAL ANATOMY OF ATROPHIC CIRRHOSIS OF THE LIVER.

Sieveking (*Centralbl. f. allg. Path.*, December 31, 1894) publishes the results of the microscopical examination of the liver in 20 well-marked cases of atrophic cirrhosis (chiefly alcoholic). The object of the pathological examination was to determine (1) whether the connective tissue development in the liver is of one definite type; (2) whether the atrophy and degeneration of the liver cells appears to cause the connective tissue proliferation, or whether the latter may be regarded as the primary process; (3) whether the connective tissue proliferation occurs in the spleen as well as in the liver; and whether the increased consistence and enlargement of the spleen may be explained thereby. Sieveking found (1) that the proliferated connective tissue infiltrated the liver substance in quite an irregular manner. In some parts the newly-developed connective tissue was inter-acinous, in other parts intra-acinous. The tracts of connective tissue were sometimes broad, sometimes narrow. In some parts a lobule was divided by tracts of connective tissue into larger or smaller groups of liver cells; in other parts, fine fibres of connective tissue surrounded each liver cell. The variations were so numerous that no particular type of connective tissue proliferation could be recognized; (2) in no place did the liver cells show signs of atrophy or degeneration unless surrounded by tracts of connective tissue. The fine fibres of connective tissue ended freely between the normal liver cells; only when the connective tissue encircled separate cells or small groups of cells did atrophy occur; hence the author regards the proliferation of connective tissue as the primary change; (3) in the spleen, the capsule, the arbeculae and the sheaths of the vessels were thickened; in various parts the pulp network was widened, and lymphoid elements clustered in the same and around the vessels. These changes the author regards as the result of congestion. No proliferation of connective tissue could be detected.

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WHOLE No. 864.

Original.

DIPHTHERIA.*

BY W. F. HERTZOG, OLEY, PA.

Mr. President and Fellow-Members
of the Berks County Medical Society:

I do not intend to inflict upon you a lengthy essay on diphtheria; neither do I intend to worry you with a dissertation on that new so-called cure of diphtheria—antitoxine. I simply wish to make a few remarks on some points in diphtheria, basing those remarks on an epidemic from which we suffered in Friedensburg during the last few months, and then leave the floor to enable you of greater ability and riper experience to discuss the same. My aim is not to instruct, but to be instructed.

When the church bell of a village in which a medical man lives tolls four times in 24 hours, announcing that many victims of diphtheria out of one family, he can't help but become interested.

I have reason to believe that our epidemic was talked of all over Pennsylvania, if not beyond her boundaries; and, therefore, a report of it to this body seems to me eminently proper. Again, you men of Reading must be interested, because Friedensburg, for sanitary purposes, must be considered a suburb to your city, although nine miles away. There is daily communication between us by stage, by market wagon, by business people and by visitors. Who knows but that during our epidemic the market produce you ate was prepared by hands infected with the Klebs-Loeffler bacillus? Again, before concluding my report, I expect to prove that we got our diphtheria from Reading. And, if we got ours from you, you, in turn, could

get it from us; hence, we must become mutually interested in this epidemic.

Friedensburg has no legal limits, but what is ordinarily considered Friedensburg is inhabited by 180 families, 620 persons. Of these 180 families, only 18 suffered from diphtheria. You will at once perceive that our epidemic was of a very limited character. The 18 afflicted families consisted of 123 persons, 56 of whom suffered from diphtheria in various grades of severity. Of these 56 cases, 17 died—a mortality of 30 per cent. From this we perceive that our epidemic was of a very malignant type. In some epidemics the larynx becomes much more frequently involved than in others—in some epidemics 50 per cent. of the deaths occur as a result of this involvement. In our epidemic only four cases occurred, all terminating fatally—a mortality from this accident of 23.5 per cent.

One of the most frequent complications of diphtheria is paralysis. This is so frequent as to be regarded by some authors as a symptom; but, as a rule, it occurs later as a sequela. It occurred in 12 of our 56 cases, viz.: In 21.8 per cent. of the cases. In some bad epidemics paralysis occurs in 40 per cent. of the cases. Ten of our cases were too quickly overwhelmed by the diphtheritic poison for paralysis to occur. Had these lived long enough it is altogether likely that all, or, at any rate, most of them, would have suffered from this accompaniment or consequence of this dreadful disease. In one of my cases paralysis of the soft palate followed fully three weeks after apparent recovery. These paralysees are caused by the ptomaine manufactured by the Klebs-Loeffler bacillus; but whether its action is

*Read before the Berks County Medical Society, Feby. 12, 1895.

central or peripheral, is a mooted question. It is one upon which I would like to have your opinion. I can understand how the minor paralysees that most frequently occur may be due to an impression upon the peripheral nerves, but I fail to understand how a complete hemiplegia, such as occurred in one of my cases, can be produced by anything short of a central lesion.

Another frequent symptom or complication of diphtheria is albuminuria. This is recorded only three times in our epidemic. I cannot vouch for the correctness of this, because examinations of the urine were not made as a rule. One of my cases died from this accident occurring, as a consequence to a bad attack of diphtheria. From my studies of this subject I believe this to be a valuable diagnostic point in doubtful cases. When you are not positive whether you have a case of pseudomembranous croup or laryngeal diphtheria, examination of the urine may solve the problem. It certainly occurs in one-half to three-fourths of the cases. As a rule, it does not occasion uremia nor anasarca. It is more dangerous than that following scarlet fever.

Another symptom noted in two of our cases was suppuration of the lymphatic glands of the neck. This does not occur nearly so frequently in diphtheria as in scarlet fever.

There are three medical men in Friedensburg, and three different explanations of the origin of our epidemic of diphtheria. One medical man claims the epidemic had its origin in an epidemic of chicken diphtheria, which, he claims, prevailed in his part of the village in the summer and early fall. Before he made this claim I knew nothing of this epidemic among our chickens. On inquiry, I learned that a disease did prevail among the chickens of our village, not only during the summer of 1894, but already during the winter of 1893. This disease, I am told, caused an intense swelling of the eye-lids, completely closing the eyes. They became sore about the mouth, on opening which a foul odor was perceived. This disease, for all I

know, may have been what is known as diphtheria in animals. Whether animal and human diphtheria are identical or not is a mooted question. For my part, I do not believe in their identity. It has not been proven as yet that diphtheria has been communicated to man by domestic animals, except, perhaps, by that midnight marauder, the cat. There is no shadow of a connection between our epidemic of diphtheria and the disease of our chickens. If it were due to the chicken disease, it would have made its appearance much earlier in the year. I mention this theory only to raise for discussion the point of the identity or non-identity of animal and human diphtheria.

Another medical man's theory is, that the epidemic was caused by the exhumation of bodies buried some 25 years ago in one of our cemeteries and their reburial in the other. These bodies were those of children who had died of diphtheria. I do not know the exact date of their exhumation, but it took place during the week beginning with October 22 and ending October 27, 1894—four full weeks before our first case and six weeks before the general outbreak of our epidemic. The exhumation was done by the father and brother-in-law of these children. The sister, together with her child, 2 years old, witnessed the exhumation. One of our Friedensburg boys, 8 years old, was there out of curiosity. All these people remained free of diphtheria. These people live four miles out of Friedensburg, and cannot have given it to us as third persons. There is no shadow of a connection between this exhumation and our epidemic; because, granting the possibility of such exhumation producing diphtheria, those opening the graves should have taken the disease first, or we should at least be able to trace them as carriers of infection from the graves to our sick ones. The Klebs-Loeffler bacillus kills a person, and is buried together with the body of his victim. He is now attacked, or, at any rate, his store of provisions, is attacked by the common earth-worm. In my opinion,

long before a quarter of a century has passed he is vanquished by the foe or has died of starvation. How long after burial the exhumation of bodies can cause diphtheria is a point for discussion.

My own explanation of the origin of our epidemic is that it was brought to us by a visitor. Friedensburg is built mainly along one street, running North and South. The Northern end of the village constitutes a school district, in which there was not a single case of diphtheria. The rest of the village constitutes the Academy school district. This school building has two rooms, an upper and a lower. In the upper room no case of diphtheria occurred. All our cases except two occurred in the lower room of this building, which I show you on the chart. Moreover, all the cases that occurred in this room, except two, occurred on one side. The cause of the epidemic was plainly to be sought in this school. The water-closet was intensely foul, but otherwise the hygienic surroundings were praiseworthy. Right here I might say that the "little house" in the country schoolyard is generally a very much-neglected house. This neglected water-closet, however, did not explain the epidemic—for the pupils of the upper room used it also. On further search I learned that a certain girl came to visit the family of John P. Schell, on the 15th of October, 1894. She was not feeling well when she came, and the next day the doctor who was called diagnosed "tonsillitis." Eighteen days later, November 2, 1894, Herbert Schell, the only child in the family, took sick, and the doctor said he was suffering from the same disease, viz.: "Tonsillitis." About the middle of November this boy went to school again, and sat at seats Nos. 2 and 14 on the chart. About 12 days later, November 26, 1894, I was called to the Haas and Schaeffer families, and found a case of diphtheria in each family.

From the 7th to the 11th of December diphtheria broke out in the Herbein, John Rhoads, DeTurk, Laucks, Bertolet, Youse, Seidel, Herzog, Lorah, Angstadt, Stuver, Geiss-

ler and Levan families. Thus, in 13 of the 18 families that suffered, diphtheria broke out almost simultaneously; hence, the source of infection was likely the same, and the infection must have taken place about the same time. After this original outbreak, diphtheria appeared in no other family except in the Aaron Rhoads and Yergen families. They got it by nursing at John Rhoads' and Seidel's respectively.

By looking at the chart you will notice that all the families that had diphtheria were those whose children sat near and about Herbert Schell. On further inquiry I learned that after his sickness Herbert Schell suffered from paralysis of the soft palate—proof positive that he had diphtheria, and not tonsillitis. As his was diphtheria, I feel justified in concluding that the visiting girl, whose case preceded his by 12 days, had likewise diphtheria, and not tonsillitis. This girl came to Reading from Iowa about four weeks before she came to Friedensburg, a sick girl. I could not trace her to a diphtheria-infected house, but certainly to a diphtheria-infected district. She lived at 220 Cherry street, and they "took her all around, because she was a stranger." About that time there was diphtheria to the North, South, East and West of that house.

To sum up the evidence of my explanation of the origin of our epidemic: A girl lived in a diphtheria-infected district for four weeks, then came to Friedensburg sick with a throat affection. Eighteen days thereafter a case of the same throat trouble occurred in the family whom she visited, this case being followed by paralysis of the soft palate. A few weeks after this boy returned to school diphtheria broke out in the families whose children sat near and about him, and in no others.

This is a line of evidence so complete as to settle the question beyond all dispute. Our epidemic, then, was plainly due to a mistaken diagnosis of the first two cases, thus allowing it to be carried to the Academy School.

The diagnosis of diphtheria, then,

CHART OF SCHOOL HOUSE WHERE FIRST CASES OF
DIPHThERIA WERE CONTRACTED.

PLATFORM.

1 Paul Rhoads, Willie Geissler.	8 Ella DeTuck, Luella Brumbach.	15	22
2 Herbert Schell, Curtis Schaeffer.	9 Alma Rhoads, Jennie Stuver.	16	23
3 Herbert Herbain, Harvey Schiedt.	10 Sallie Dengler, Maud Hertzog.	17	24
4	11 Grant Seidel, Asher Butterweck.	18	25
5	12 Willie Angstadt, Willie Haring.	19	26
6 Victor Larah, Louis Youse.	13 Herbert Schell, James Stuver.	20 Katie Herbein, Annie Levan.	27
7	14 Robbie Angstadt, Randall Hertzog.	21	28

is a point for you to discuss. You may say the demonstration of the Klebs-Loeffler bacillus in the exudate will always settle the point. Very true; but we can't all be bacteriologists nor microscopists. Therefore, how to diagnose it without either microscope or culture fluid is the question the general practitioner is interested in. For my part, I see no reason for the careful or experienced physician to mistake even a mild case of diphtheria for a follicular tonsillitis. Should there be a doubt at first in the diagnosis, 12 hours' time will certainly clear up the matter.

I have learned in our epidemic that reinfection may take place in the same epidemic. In one of my cases, after all traces of membrane had disappeared, there was an aggravation of the general symptoms and the formation of a good-sized membrane on the left tonsil. In the much-afflicted Levan family, a case of "quinsy" had occurred December 8, which kept the girl, Annie, out of school for one week. She returned to school December 17, and on December 22—six days after she had returned to school, or two weeks after she became sick with "quinsy"—her sister Ada took sick and died in the morning of the 26th. During the night of December 25 Charles, Paul, Lot, Lizzie, Sallie, Katie and Minnie took sick. The parents took sick in the evening of December 26. Thus, these nine cases occurred within four days of Ada's sickness—a time too short to infect the whole family. I know full well that the time of incubation is short at times, where there is constant exposure; but, in this case, I know that the whole family was not in close attendance on the one sick child. Again, Daniel, one of the grown sons who died, came home December 26, and on January 8, 13 days thereafter, he took sick. If, in Daniel's case, the incubation stage was 13 days, then I have reason to believe that the incubation period in the other cases was about the same, which period of time corresponds exactly to the time between Annie's case of "quinsy" and the general outbreak of diphtheria in

the family. In short, her attack of "quinsy" was a mild attack of diphtheria; if so, then she was afterward reinfecting, for, according to the doctor's report, she had a very mild attack while the others were sick. To show the malignancy of the poison in this family, I may say that they all died in three and four days after they became sick, except Sallie, who lived two weeks, and then died of paralysis of the muscles of deglutition. The ages of those who died were 20, 18, 16, 10, 6, 4 and 1 1-2 years respectively. They were all very robust children.

Further, I have learned in our epidemic that late infection may take place. In one of my families four weeks after recovery, and three weeks after we had thoroughly cleaned and fumigated the house, a new case appeared. It is claimed that for three, and even four, weeks, virulent bacilli can be found in the throats of those who have had diphtheria. For that long a period patients must be isolated.

In the Schaeffer family the boy who had it and died was too young to attend school. His brother did attend, and sat beside Herbert Schell. Every evening when he came home he took off his coat and his little brother wore it until bed-time, thus proving plainly that a person may carry the infection and give it to others without himself getting it.

The success of our treatment seems to be more easily demonstrated by the mounds of earth in our cemeteries than by the enumeration of remedies. The one remedy I wish to condemn as useless is the peroxide of hydrogen. The drug which I consider the remedy par excellence is the bichloride of mercury, applied locally and frequently in spray form. The disease is a local disease; the general symptoms are due to a toxemia produced by the absorption of the ptomaine manufactured by the Klebs-Loeffler bacillus. To prevent this toxemia all you need do is to "shut down" the ptomaine manufactory which exists in the throat of your patient; not by inducing the laborers "to strike," but by killing them outright with the bichloride of

mercury. This ptomaine is very soluble and very readily absorbed by the lymphatics; it is the most virulent poison known, and is chemically identical with the poison of the snake-bite; hence, oftentimes its severity and rapidity of action. The principle of the antitoxine treatment is the fact that, during an attack of an infectious disease there are elaborated from the body-cells and fluids certain complex compounds which are antidotal to the toxine or poison producing the disease. When a sufficient quantity of this antidotal compound is produced the disease is arrested and convalescence is established. In diphtheria the Klebs-Loeffler bacillus produces the toxine; and in some mysterious way there is manufactured within the body an antitoxine which arrests or cures the disease. In order to procure this antitoxine an animal is immunized by attenuated diphtheria virus. When immunity is established sufficient of this antitoxine is held in solution by the serum of the blood to neutralize the diphtheritic toxine. The serum of the blood of such an immune animal is used in the treatment. This sounds Hahnemannian; but, whether Hahnemannian or regular, the results reported from the Kaiser and Kaiserin Friedrich Hospital in Berlin are very favorable. The mortality rate has been greatly reduced, if reports are true; but the German is apt to be too sanguine.

Before concluding my paper I wish to make a suggestion that may not be strictly medical, but is, at least, in the line of sanitation. This is the necessity of the incorporation of villages the size of Friedensburg. This may be inexpedient on political grounds, but is certainly absolutely necessary for sanitary purposes. There we are, huddled together almost as densely as you are in the city of Reading, and yet we are without power to protect ourselves from infectious and pestilential diseases. I often wonder that our epidemic did not spread over the village; and, whether the spread was prevented by the heroic efforts of the doctors or by a kind Providence, I know not.

When, a few years ago, the intelligent and progressive people of Friedensburg asked for incorporation, the strong argument in favor of incorporation made by Dr. Herbst and myself was sanitation. We lost, and I have often wondered since our epidemic whether some of the grand jurors who refused us incorporation, as well as the lawyers and all others who opposed such a noble purpose, have not been conscience-struck since reading of our 17 deaths from a preventable disease.

THE GERMS OF MALARIA.*

BY DR. P. KAUBASSOF, KATTA-KOURGANE, RUSSIA.

In commencing my bacteriological studies on malaria during the summer of 1894, I prepared beforehand different culture media—the recognized media, and also some organic and inorganic ones, as glycerine, urine, grape sugar, iron, etc. At the same time I prepared dry preparations of the blood of fever patients; at first, only during the chill, the fever and the sweating stages, and three to four hours after the sweating, and the same length of time before the commencement of a new paroxysm of fever. Later on, similar preparations were made according to a particular plan, which embraced the period of from thirty-six to forty-eight hours, according to the type of fever. These preparations were made every two, three and four hours, giving an average of ninety-six preparations from each patient.

By a similar analysis of the blood I got so determinate an idea of the microbe that I knew beforehand what to look for in the cultures.

Before describing the germs I will devote a few words to the histological side of the question.

It is well known that dwellers in ancient Rome knew that they contracted the fever (malaria) where the atmosphere was pernicious, as in the marshes (or, as the district was named, "The Maremma), whence also comes the term, "malaria."

Balestra had demonstrated in specimens from marshes around

*Translated from the original French manuscript by Dr. E. W. Bing.

Rome, very small round cells, which were about one-one-thousandth m. m. in diameter, and the same corpuscles were found my him. present in the air of Rome.

Jarabowitz had also found in the malarial regions of the Caucasus a figure of eight shaped bacillus, which he considered the cause of malaria fever.

In 1879 Klebs Tommasi-Crudelli had studied the bacteriological characters of air, water and soil surrounding Rome, and found a bacillus which they separated by a pure culture, and which they named the *B. Malariae*, because it caused when injected under the skin of animals the typical paroxysms of intermittent fever. This bacillus measured from two to eight microns in length, was surrounded with tangled filariae and contained spores.

Marchiatava found this bacillus in the blood of persons dead from pernicious fever.

Later on, however, Golgi and Arcangelli denied the discovery of these observers, and Vidal affirms that Klebs' bacillus alone has historical interest.

Lavern has described four forms of parasites which he has found in the blood of fever patients.

1. Spherical corpuscles most frequently met with; they are pellucid, about eight microns in diameter and contain no nucleus. These are found free in the blood, as well as on the red corpuscles. The smallest globules contain no pigment, while the larger have plenty of it distributed around them in a regular manner. The bodies have motion which lasts for three-quarters of an hour.

2. Flagella attached to the preceding corpuscles, attaining a length from 21 to 28 m. m.

3. Crescents, eight to nine microns in length and two in width, a mass of pigment is often found in their centre; their extremities are frequently joined by a slender thread.

4. Rosettes, spherical corpuscles, pigmented on the centre, and having segmented borders. These have amoeboid motion.

This is all we know of the microbe of malaria. The results which I have

obtained reduce all these contradictory theories to a common plane.

If we sow a drop of blood from a fever patient in milk or broth, or add the substances previously mentioned to boiled egg, after a few hours formations exactly resembling mycelium will be reproduced. These have for each variety of fever a particular form.

Very soon buds and globules appear on this mycelium and globules are found in the free state. They vary in size; the largest are about ten microns in diameter. Some resemble a placenta, with a slender cord. These globules, which I have called "Plasmodial globules," divide and give spheres or discs (plasmodial discs), having about the same characters of shape and size.

These may form directly from the buds of mycelium and may multiply. Sometimes they take the angular form. On the periphery of the discs thickenings occur, in the centre of which are observed luminous points which are the spores. The discs divide into concentric rings, which in turn have radial projections. In this way is formed a mass of small portions of protoplasm of diverse size and form, which we may call plasmodiae, and, if they contain spores, we may name them sporogenous plasmodiae.

Besides these we find formations of a rosette or daisy-like form, and also plasmodiae-bearing spores, which last are of different forms and sizes. These I have called "rosette bizarres."

Ordinarily sporogenous plasmodiae break up by degrees, and in the end we have a large mass of spores surrounded only by particles of plasmodial protoplasm in the shape of rings, tails or shoots.

It may be mentioned here that sooner or later pear-shaped formations, having many extensions, appear. We can see in these corpuscles a design which shows that their contents consist of future spores; thus, the pear-shaped corpuscles have sporangia, which are sometimes connected with the mycelium. The spores which have left the sporangia are all of the same size.

Sooner or later in the centre of the spores appears a corpuscle of a dark color, resembling a curved rod, and, later on, a globule. In the "rosettes bizarres" these bodies appear in the centre of clear spots and take on different shapes. When these bodies have lost the sac in which they were formed, and which was the envelope of the spore, they dispose themselves very queerly in crosses, arcs, rings, etc., and, what is more important, they begin to segment, and repeat it three, four or five times, and these segments again become subdivided, so that many globules of different sizes are produced, some almost invisible to high amplification. These should be regarded as a pro-mycelium.

The existence of these globules, dividing into segments of different size, is the most characteristic trait of the malaria fungus.

On the appearance of the pro-mycelium, clouding of the bouillon, which until now has remained clear, occurs; it is only after disturbing the liquid that one sees the cloud which rises from the bottom of the test glass and extends filaments through the liquid. Clouding of the bouillon usually begins after eleven or twelve days.

In cultures of two months' age pro-mycelium is found in the form of globules, which remain of the same size and undergo no further sub-division. But if sowed in fresh bouillon the segmentation goes on as before.

The completed formations do not respond equally well to stains; gentian, yellow, methyl, violet are the best stains. The spores do not take the color. The mycelium is well stained at first, but later on it becomes of a pearl color, and then cannot be stained at all. The pro-mycelium stains best of all, then the globules, discs and plasmodiae; these are also susceptible of double staining.

From the description it is evident that the germ of malaria should be considered as coccidia-mycetes. The continued and tertian varieties have about the same characteristic cy-

cle of development. They also multiply and stain better than the preceding germs. We rarely see plasmodial globules with the coccidias.

Generally plasmodia carrying spores and assuming odd shapes are seen.

The pro-mycelium of tertian fever shows itself as globules in the form of a figure 8; it divides so quickly that the division is seldom seen. The globules often arrange themselves in a long twisted chain, which is characteristic of this variety.

The germ of continued fever is distinguished from the preceding by its pro-mycelium, which presents itself as corpuscles of diverse size and shape, beginning with bacilli and spindles and terminating with rhombs, squares or with subdivided globules. These often arrange themselves in chains, in which the rhombs and squares are joined together by their diagonals. The different forms occur in this chain, and bacilli, rhombs and semi-circles. All these forms are derived from the segmenting globule, which is met with most frequently in cultures, and which is the characteristic feature of all forms of the malarial fungus.

The only way to distinguish between the different varieties of germs is by making use of the pro-mycelium, and not the intermediate forms, which sometimes take on other shapes. For example, the germ of quotidian fever may occur as a curved rod or as a globule.

The only way to differentiate is by the use of staining fluids, by which the pro-mycelium becomes stained deeper, while the intermediate forms become paler or quite decolorized.

Some forms may enlarge gigantically, e. g., the rhombs of continued fever may extend across the whole field of the microscope, looking like a ribbon folded on itself several times. The pro-mycelium of the fungi possesses a particular and peculiar motion. It dances or turns on the same spot, or it hops from place to place, resting momentarily.

This is especially noticeable in continued fever, where small portions

of protoplasm of various forms and sizes (some black in color) undergo the motion.

At a temperature of 20 to 25 R. this motion may last for several days.

As to the pathogeny of the fungi, it is fatal to small animals, but in larger ones it first raises the temperature and subsequently depresses it. The poison can be either injected or given by the mouth. Infection occurs very quickly, sometimes in two or three hours, and the germs may be found in the blood. They go through the same cycle of development, but more quickly than in the cultures.

In man the manifestations are analogous. To find the germ in the blood it is requisite to make use not only of simple staining, but also of double staining.

For practical purposes it is requisite to know that the period of the chill is the time when the spores are liberated from their capsules. During this period the great mass of the protoplasm probably is burned up and provokes the fever. The period of sweating corresponds with the setting free of the spores, and the sub-normal temperature corresponds to the appearance of the mycelium.

There is foundation for the belief that quinine hinders the development of the fungus, and, especially the formation of spores in the plasmodiae, which then perish. This is why it is proper to give quinine for some time before the paroxysm. The muriate should be given ten to twelve hours, and the sulphate fifteen to sixteen hours before the chill.

The germs are found in all the excreta and in the vesicles of labial herpes. A zone of infection surrounds each patient and probably that is the cause of the repeated paroxysms.

How does the germ gain entrance to the organism? Probably by means of dust, or evaporating moisture from streams, ponds, etc. The domestic animals play a great part in the dissemination of the germs, especially birds, who are in malarial countries frequently attacked and in whose blood the germs live for three months or more.

ACETANILID VS. QUININE TO ABORT CHILLS AND FEVER; AND ACETANILID AS A DUSTING POWDER.*

BY BENJAMIN H. BRODNAX, M.
D., OF BRODNAX, LA.

In 1890 I first used acetanilid in a case of catarrhal fever with convulsions, in an infant nine months old, with astonishing amelioration of all grave symptoms in fifteen minutes. My next trial of the drug was in intermittent fever in a family of three small children. The doses ranged from two to three grains, and when the time for the chills arrived the children were asleep and perspiring. I have employed the drug quite extensively, but it is especially in chills and fever that I desire to emphasize its great merit. My mode of using it is as follows:

If there is time before the chill I give from one and a half to two grains of calomel in quarter-grain doses a half hour apart. Then, whether the bowels have acted or not, I give, according to the age, from two to six grains of acetanilid twenty minutes or half an hour before the expected chill. Gentle perspiration, with sweet and natural sleep, usually promptly follows the administration of the drug, from which the patient awakens entirely relieved and ready to go about in half an hour.

When there is not time before the chill to administer the calomel it may be deferred until afterward; but the acetanilid may be given immediately before or during any stage of the chill or fever, with the happy result of promptly inducing sleep and gentle perspiration. Should the desired effect of the drug, viz., sleep and perspiration, not follow its administration within a half hour, a second dose of equal amount should be given.

The after-treatment consists of an acid tonic, viz:

R.—Acidi. nitro. muriatici dil. floz. j

Ferri sulphatis . . gr. lxxx.—M

This should stand for twenty-four

*Read Feb. 13, 1895, by Dr. Oscar H. Allis, before the County Medical Society.

hours. S.—Ten drops in water three or four times a day.

On Friday, October 19, I was called to see a young man who had had "dumb" chills, with vomiting and severe gastric disturbances, for six days, the attack coming on daily at 1 o'clock and lasting until midnight. When I arrived, at 7 o'clock in the evening, he was vomiting thick, glairy mucus, and was unable to retain anything on his stomach. I immediately administered hypodermatically one-quarter of a grain of morphine and gave six grains of acetanilid dry upon the tongue. He had one slight attack of vomiting soon after, but a little later fell into a sweet and a refreshing sleep, from which he did not waken until 7 o'clock the next morning. As the next chill was expected at 1 o'clock he was ordered to take six grains of acetanilid twenty minutes before. No chill followed, and none have taken place since. The after-treatment with the "acid tonic" was pursued, as is always my custom.

I have now treated several hundred cases of chills with acetanilid, and without quinine, and report my success in the hope that others will be induced to give it a trial.

Acetanilid and boric acid, in equal parts, as a dusting powder, I have used extensively in ulcers, burns, etc. I find the powder especially serviceable in the excoriation of infants and fleshy people; with it I dust the funis of the new-born babe, while over the vulva of the mother I place a little cotton previously well dusted with the powder. Made into a paste with glycerine, I have used it in a vaginal tampon to allay uterine pain.

In the case of a female, 61 years of age, almost crazed with the itching from a pustular eruption that covered the lower part of the abdomen, vulva and anus, the powder well dusted over the affected parts, after first moistening the parts with dilute carbolic acid, was followed by six hours of consecutive sleep. She was wakened by a return of the itching, and, rising, washed the parts and reapplied the dilute carbolic acid and powder, with immediate return to sleep. A great improvement was

observed the next day, and in a few days the parts were well. Previous to the application of the powder she had not slept well for several nights even with the aid of morphine.

Internally I have used it to correct foul breath; also in dysentery and diarrhea. When taken on the tongue and held in the mouth a few moments before swallowing, it has the effect of allaying the distressing thirst that accompanies fever.

AMNESIA.

BY J. G. HENDRICK, M. D., CENTRE POINT, TEX.

Amnesia, in its varied forms, affords interesting study to the thoughtful physician and opens a field for investigation by the physiologist and pathologist.

Evidence supports the theory that memory is located in right hemisphere of the brain. Another peculiar fact is that memory has different phenomena of expression; one may be lost while others are retained intact in cases of lesions or injury by disease and wounds.

Some years since a peculiar case came under my observation. A gentleman consulted me for treatment of a peculiar form of amnesia, the result of severe cerebral inflammation, from which he had recently recovered.

It was impossible to get a history of his case, as he lived some distance, and had been treated by his family physician. From what information I could get, and the symptoms present at the time, I was satisfied that the seat of the inflammation was in the right parietal region. The pupil of the left eye was largely dilated, sensitive to light, requiring a shade to be worn. Speech was distinct, but a little slow, and somewhat hesitating, but he answered questions correctly.

The most peculiar feature of his case was that, being a man of average intellect and education, since his recovery it was impossible for him to write a word or letter until it was spoken to him. He knew and could call by name all his acquaintances, knew his own name, but when

given a pen or pencil and requested to write any name or other word, it was impossible for him to do so unaided. However, if he was requested to write, and then each letter called off slowly he could readily accomplish the task.

The same difficulty was apparent if he was required to write a combination of figures, each figure having to be called off to him separately.

The faculty of reading writing or print remained intact with him. After some length of time the lost faculty was fully regained and average health restored.

Dr. Roberts Bartholow, in the Cincinnati Medical Journal, in 1870, reported the case of D. B. Lawler, which was the opposite of my case. Mr. L. was an intelligent business man, possessed of a superior mind by nature, but from disease he lost the power of reading written or printed matter, but could write and sign his name correctly; however, such writing and printing was only so many meaningless marks to him after his task had been accomplished. He knew what he wished to write perfectly well, but had lost the power of reading. All other faculties were intact.

At the autopsy Dr. Bartholow found the principal arteries of the brain, as well as some in other portions of the body, calcified and enlarged, together with some lesions of the brain on the left side.

Singular was the case of Lieutenant Brady, referred to in "The Times and Register" of December 15, 1894, who lost a portion of the right side of the brain by a gunshot wound and suffered a remarkable loss of memory, and, after recovery, he knew and could call by name all his associates since the recovery took place, but could not remember any one he knew before the injury.

Each one of these cases lost the power of memory, but in a different manner in each case. What was lost by one was retained by another; therefore, it is plausible to presume that memory is controlled by distinct parts of the brain and that disease may destroy one part, leaving

the others to exercise their functions.

POINTS CONCERNING THE VOICE.

BY LOUIS LEWIS, M. D., PHILADELPHIA.

Next to beauty of face and form no physical attribute of the human race is more pleasing than a melodious voice. The power of song has fascinated the world ever since the days of the Bible; since David and Jehoshaphat employed bands and choirs of singers to sound the praise of God; and since, among the people returned out of captivity into Babylon, hundreds of professional singers, male and female, were paid, and entertained and honored in their own cities. Even to this day the Jews are noted for their excellence in singing. But there is also a sort of magnetism about a sweet-toned speaking voice that has an irresistible influence, and easily counterbalances any imperfections of personal appearance; whereas harsh discordant tones detract from a favorable impression of the speaker, and grate forebodingly on the ear. An unpleasant voice is often congenital, and we cannot all be silver-tongued orators; indeed, we often hear those who painfully convince us that "silence is golden." Yet training and medication can render infinite service to both singers and speakers, in developing a voice that is naturally good, or in improving one that is functionally deficient.

The average compass of a singing voice is two octaves, or 16 notes; above or below this the sound becomes harsh and strained. Female notes are usually an octave higher than corresponding notes in the male, and their vocal cords resemble those of boys, producing "altos" and "sopranos." As the boy merges into manhood the cords increase in length by about two-thirds, and his voice then becomes "bass" or "tenor;" but in the interval it gives or breaks in a characteristic discordant manner. In old age it weakens and falters, through calcification of the cartilages and loss of command over the muscles; and when, at any time, a

singer begins to experience serious loss of control over his voice, especially when he loses his "falsetto" notes, paralysis of the tongue may possibly be impending.

The singing voice in birds is produced in lower segments of the larynx than in man, by means of several special muscles, which regulate the distance between the vocal cords. The best birds possess five pairs of these muscles; parrots, which only "talk," have three pairs; while fowls, gulls and such, which cannot modulate their tones, have but one pair. In storks, cranes and swans the trachea reaches down below the neck, the lowest ring or convolution being placed behind the sternum. Perhaps this enables them to emit the sustained increasing wails that Tennyson has described in "The Dying Swan:"

"The wild swan's death-hymn took
the soul

Of that waste place with joy
Hidden in sorrow; at first to the ear
The warble was low, and full and
dear;

And floating about the under-sky,
Prevailing in weakness, the coronach
stole

Sometimes afar, and sometimes
anear;

But anon her awful jubilant voice,
With a music strange and manifold,
Flowed forth on a carol free and
bold."

Even fishes are musically inclined, for there are at least four varieties that have voices—the trigla, the cottus, the cordonia and the pogonia. The trigla grunts like a young pig, when removed from the water; hence its nick-name of "Peter Grunter." The cottus gives out a squeak when its body is squeezed, like the familiar toy of our childhood. The cordonia emits a strange sound by means of an air-bladder, as also the pogonia, which is better known as the "tambour" or drumfish." Frogs, toads and crocodiles obtain their croaking sounds from the upper larynx, just like man and mammalia; while some lowly creatures, as crickets, katydids and other grasshoppers, which are devoid of vocal apparatus, supply a not unmusical sound by fric-

tion of their legs and wings. Even some snakes produce a mechanical sound when they are "rattled."

Ravis, or hoarseness, and aphonia, or loss of voice, are constant sources of dread to singers, actors and elocutionists, as overwork and changes of temperature render them constantly liable to these disqualifications. The causes are very various, ranging from simple capillary congestion in the vocal cords, which thickens their edges and hinders their vibrations, to far graver conditions, such as folliculous or syphilitic pharyngitis, ulceration from catarrhal, tuberculous, rheumatic or syphilitic laryngitis; pachyderma laryngis; paralysis of the laryngeal muscles, sarcomatous, cancerous or other growths in the larynx oesophagus, aneurism of the transverse aorta, and lesions of the medulla oblongata. Sometimes a web-like structure unites the cords, notably in syphilitic laryngitis, causing aphonia. Sir Morell Mackenzie operated on a lady who was voiceless, owing to a papillomatous web that passed between the cords and bound them together; on its removal her voice was permanently established. Aphonia may also be initiated by immoderate doses of ammonia, and nitric and sulphuric acids; and hoarseness, in a lesser degree, by stramonium, atropia, and belladonna.

Hoarseness arising from simple causes may be relieved by leeches, mustard or other counter-irritation; a pellet of borax or gum arabic, dissolved in the mouth; infusions of sage, horseradish, pellitory or pomegranate, used as gargles; inhalations of chloride of ammonia or sulphurous acid vapor; nitrate of silver solution (gr. x to the ounce), locally; or, alum (gr. x to the ounce), cocaine (2 per cent.), boroglyceride (1 in 20), or ipecacuanha wine, in the form of spray. Internally, 10 grain doses of cubebs, or 5 minims of dilute nitric acid; or a drachm of equal parts of ammoniated tincture of guaiacum and syrup of senega; any of these may be taken three or four times a day.

Aphonia may be functional or organic, temporary or permanent. The functional variety is often hysterical,

due to paresis of the abductor muscles, and may be associated with uterine or ovarian disorder; or it may follow sudden mental shock. Mineral tonics, strychnia, cocoa and valerian are indicated, with galvanism and astringent sprays. In organic aphonia, swabbing with strong nitrate of silver solution is useful, and astringent sprays and tonics. But many cases call for surgical interference, as the removal of neoplasms, etc., by the knife, ecraseur, caustics, forceps or galvano-cautery.

I have had no experience in the use of "animal extracts," or I might be prepared to recommend "laryngine" to make a man sing.

Book Reviews.

A MANUAL OF BANDAGING, ADAPTED FOR SELF-INSTRUCTION. By C. Henri Leonard, A. M., M. D. Sixth edition, with 139 engravings. Cloth, octave, 189 pages. Price, \$1.50. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

The main feature for commendation of this book over other similar works is that each illustration shows the direction of the various turns of the bandage with arrowheads, and each turn is properly numbered; this renders the book a self-instructor to the reader of it, who has but to put the various bandages about the limbs of an office companion a few times, when the "trick" of its application upon a patient has been learned. It takes the place, in this way, of hospital drill. Besides the "Roller Bandages," the various "Ts," "Cravats," "Slings," "Tailed," "Adhesive" and "Plaster" bandages, and "Immovable Dressings" are given. The book is divided into sections treating of "The Bandages of the Head," of "The Body," of "The Upper Extremity," of "The Lower Extremity," "Knots," "Strappings," "Compresses" and "Poultices," with full description of making and applying the same. There is an illus-

tration for nearly every bandage described. It has been recommended as a text book in various medical colleges and hospitals in this country, and has had two editions sold abroad. A medical student could profitably spend his vacation evenings in mastering the application of bandages by using this book as a guide; and to a practitioner it would not come amiss.

BOOKS AND PAMPHLETS RECEIVED.

CYLINDROMA ENDOTHELIOIDES OF THE DURA MATER CAUSING LOCALIZING SYMPTOMS AND EARLY MUSCULAR ATROPHY. By L. Bremer, M. D., and N. B. Carson, M. D., of St. Louis, Mo. Reprinted from the American Journal of the Medical Sciences, February, 1895.

THIRTY-FOURTH ANNUAL REPORT OF THE BOARD OF MANAGERS OF THE WOMAN'S HOSPITAL OF PHILADELPHIA. January, 1895.

A CLOTHING-CASE FOR THE ARMY AND NAVY AND A DEVICE FOR TRANSPORTING THE WOUNDED. Read before the International Medical Congress at Rome. By W. Thornton Parker, M. D., Groveland, Mass. Reprinted from the International Medical Magazine for November, 1894.

OFFICIAL LIST OF MEDICAL OFFICERS, ACTING ASSISTANT SURGEONS AND HOSPITAL STEWARDS OF THE U. S. MARINE HOSPITAL SERVICE; ALSO LIST OF U. S. MARINE HOSPITALS AND QUARANTINE STATIONS. January, 1895. Washington: Government Printing Office, 1895.

A lady whose husband was ill with a severe cold was recommended to make for him a cup of flaxseed tea at bedtime. By mistake she employed bird seed instead, and it was with difficulty she could restrain her afflicted spouse from singing all night.

The Times and Register.

A Weekly Journal of Medicine and Surgery.

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TUBERCULOSIS.

Since the publication of the paper on "A Practical Theory and Treatment of Pulmonary Tuberculosis" in the first numbers of the present volume of the "Times and Register," by the editor, much has been said and written strengthening the views taken therein.

Recently Professor Liebrich, of Germany, read a paper upon the treatment of lupus by cantharidates, in which he brings out the following theory on tuberculosis. "The resisting power of the organism is very great, and when a healthy being is inoculated with tubercle bacilli, no general tuberculosis results, but at most only the production of localized nodules. General disease could only supervene where there was a predisposition. The healthy human cell resists the action of parasites, and the disease-causing parasite can only attack it when it is weakened."

This view is in exact accord with that advanced in our series of articles on consumption. The tubercle bacillus attacks only dead or dying

cells. If there is no stasis of waste elements in the tissues (lymphatic stasis), the bacillus will depart with other waste elements of the body, through the various emunctory organs. If there is such stasis, a favorable opportunity opens for the growth and propagation of the bacillus, but the latter only stands as a phenomenon of the disease and in no way causative. It is very likely of reactionary nature, under certain conditions, but in no way causative of the stasis.

As a treatment for weakened vitality of cells Professor Liebrich has called attention to the uniformity with which lupus disappears under a long course of treatment on cantharidinate of sodium and potassium, covering years, if necessary. The drug is given in dose of one or two decimilligrammes (one-fiftieth of a grain), which may be taken without inconvenience. It is well worth trying.

As to the point of the communicability of tuberculosis, it seems to us that Boards of Health carry the question too far. The question hangs on the proving that lymphatic stasis, or devitalized blood cells are contagious, a thing which is as preposterous as it is absurd.

THE TREATMENT OF COLDS.

Now that the time of year has arrived in which extra precautions must be taken against contracting acute catarrhal inflammations of the respiratory tract, it may be well to inquire into some of the causes which lead to the production of these diseases and the most efficient methods of treatment.

As the warm days approach, alternating as they frequently do with a brief cold spell, the habit of laying off winter clothing becomes seemingly imperative. The dust and germinating animalculae which float about in the air are active local irritants to the mucous membranes of the respiratory tract, and the two agents go hand in hand for the production of colds.

The cold winds of a northeasterly storm, bringing with them more or less chemical changes in the atmos-

phere, are also active causative factors. Many of us lay off our coats in the heat of bodily exercise, while raking up gardens, lawns or yards, and in this manner our susceptibility to the contraction of colds is augmented.

The relationship between a cold and influenza is not marked. We have been so accustomed to call every little cold "an attack of the grip" that we run great danger, therapeutically, of hitting wide of the mark. Grip is a distinct, emphatic disease, which, when one has it, he is not very apt to mistake for an ordinary cold; while, if one thinks he has the grip, but is not quite certain of it, the malady is pretty sure to be the ordinary cold.

In the treatment of colds the danger lies not so much with the inflammatory condition itself, as to the liability which arises from continued irritation or direct extension of the inflammatory conditions to lung structures. Many an incipient phthisis arises from a simple cold.

Once thoroughly inaugurated, these spring colds usually occupy about a week of time, with the aid of the various remedies employed. The dangers are that we overcrowd remedies without regard to the pathological conditions presented. We must bear in mind that the system must become accustomed to a new condition of affairs, and that great prudence is necessary in exposing oneself to outdoor temperature without sufficient protection.

It is possible in the early stage of a cold, especially when such is of the nasal variety, by thoroughly irrigating the nose twice a day, with warm water, in which a little borax has been placed, to abort an attack.

To do this no syringe is necessary, but by simply immersing the nose in a basin of water, and with forcible inspiratory and expiratory movements, holding the breath at the epiglottis, the nasal passages may be thoroughly irrigated. Of course, there are advantages in the syringe, which may be preferable from a point of neatness.

Aconite holds an excellent place in aborting colds, but care must be

taken in its employment, that fresh colds are not contracted. The dose usually employed should be a drop an hour, or half hour, as the severity of the case requires, which should be maintained until free perspiration results.

Quinine may also be employed as well as the coal-tar derivatives, but are not as efficient as a well-directed course of treatment by aconite.

NEW OPERATIONS FOR THE RADICAL CURE OF INGUINAL HERNIA.

In spite of the already large number of methods which have been devised for the radical cure of hernia the list still grows apace. This is conclusive evidence that we have as yet no method that is uniformly successful. All conservative writers agree that after every one so far devised there will be a large number of recurrences. The reason for so large a proportion of failures is not difficult of explanation. The success of the operation depends, of course, upon securely obliterating the canal through which the hernia descended. Operators have displayed great ingenuity in devising means to secure this obliteration, the success of which depends upon the various structures retaining the positions in which they are placed at the time of operation. Unfortunately this expectation is not realized. The stitches give way, or the transplanted flap undergoes atrophy in the new position, and but little resistance is left to the redescend of the hernia. It will be remembered, of course, that most of these operations are performed in cases in which the tissues are altered by the long-standing rupture. The truss still remains, therefore, the best method of dealing with a reducible hernia, if it can be retained thereby.

BARRED OUT OF THE MASSACHUSETTS MEDICAL SOCIETY.

The Massachusetts Medical Society has voted to debar from its membership all graduates from the College of Physicians and Surgeons, of Boston.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

HOW THE ANTISEPTIC ACTION OF IODOFORM IS EXPLAINED.

By Dr. Stehégoleff, of St. Petersburg.

The above author has under the above title presented the most comprehensive and scientific contribution on the therapy of iodoform that has yet been written; and goes a great way in the direction of classifying many mooted points on this important subject, yet, withal, it leaves much, still by no means settled.

A few of the leading features of his valuable brochure, only, can be noted here, but these are of such vital importance as not to be considered lightly by those of us interested in the antiseptic theory, and the rationale of treatment which recognizes that for its foundation stone.

Iodoform, he tells us, was discovered by Surréllus in 1822, and was introduced into surgery by Mosetig Moorhof in 1880, who noted its specially favorable action on the tubercular lesions of bones. Since then it came into vogue, in general surgery, with surprising rapidity.

It was soon discovered, however, by Schede König, Kocher and others that its employment might produce grave intoxication or even cause the loss of life. Nevertheless, nearly all surgeons use it in preference to every other antiseptic, in dressing sores or wounds. It seems to diminish the secretion of wounds, and, when left on long, does not cause any cauterization of the tissue. Baumgartner, Marchand and Bruns observed that it modified markedly the histological processes in granulating lesions. Finally, many surgeons soon came to regard iodoform as practically a specific for tubercular lesions.

Nearly all authorities argue that it is not an antiseptic, when tried by the experimental test; and, admit that it exercises no influence on the majority of pyogenic organisms on which its role is said to be considerable in antiseptic surgery.

It was, therefore, with a view of endeavoring to clear up the discordant notions on the action of the drug in clinical and experimental observations, the author undertakes a series of experiments in the laboratory which he himself declares are not quite definite.

Heyn and Thorskind were the first observers who called into question the claims of iodoform as an antiseptic in 1887. These Danish surgeons, to their great astonishment, observed in a laboratory test that iodoform in no manner whatever influenced the vitality or growth of pyogenic germs. Bacteria developed and grew in vast colonies in iodoform with bouillon. They did equally well in gelatine and iodoform oil. Maylard likewise also demonstrated that iodoform was entirely inert in action on the most virulent micro-organisms, especially the bacteria of anthrax, of septicemia and cholera bacilli. Kunz, Senger and Kuoncher, in laboratory research, had similar results. Indeed, Kunz went so far as to deny that iodoform in any manner influenced bacterial life. Tilanus proved that the chemical had no influence on the micrococcus putridus, and Maylard also proved that it left the bacterium-termo unaffected.

Experiments on animals gave the same results as cultures in artificial media. Lubbert, Meisser, Kunz and Schirner observed the same phenomena when they injected pure pyogenic cultures; or those mixed with iodoform. De Ruyter, a strong advocate of iodoform, while he admitting no influence of the drug on cultures in vitro, believed it had positive value in surgical use, as in suppurating wounds, etc.

He thought that under the influence of animal heat and biological activity the microbe iodoform was decomposed and liberated, thus inhibiting germ action.

De Ruyter believed that the infection and septicity of a wound depended on the toxics secreted by germs, and that iodoform produces its beneficial action by, in some manner, neutralizing these.

Mickulicz, Bruns, Verneuil and Billroth believed that iodoform ex-

erted a specific action on tubercle; how far this belief was supported by scientific test was to be proven. Bruns injected iodoform oil into tubercular joints—10 parts to 100. But Trogue and Tangel, in their experiment on tuberculous animals, found that iodoform made no impression on this specific microbe.

Roosing, among the first to examine into this question by test experiments, on the lower animals, took tubercular lung tissue of the rabbit, triturated it in a mortar with iodoform and then injected it into the cornea. Local tuberculosis developed as soon as in those in which the iodoform was left out, and, he noted, that in all these cases tubercle tended to generalize. Catrin repeated these experiments and concluded that iodoform in no manner influenced osseous tuberculosis; on the contrary, the irritation which the drug produced rather provoked its rapid spread. Filleau and Petil after a most extended and critical investigation into the question of iodoform-therapy on the bacillus of Koch, decided that it was quite impotent.

The author now gives his own personal observations, after a series of experiments on the animal, his purpose being to determine the value of the drug, if it had any, as a germicide, and to ascertain how it acted.

He commenced by testing it on the tubercular bacilli.

By a most ingenious contrivance with a medium of glycerine bouillon and iodoform, the latter always sterilized, he began. Without detailing the rather complicated technique and precautions observed, it is enough to say that he found, when the tubercle bacillus was exposed to the action of this warm fluid for 24 hours it was killed. He partly ascribed its prompt action to the solvent effect of the glycerine on the iodoform. 0.50 c. c. of the same mixture was now injected subcutaneously into the tissue of a guinea-pig. Sixty-five days later it was killed, when abundant masses of tubercle were found in the omentum. The thoracic organs were all healthy, however.

He then injected a virulent culture of tubercle with iodoform—10 to

100—into one animal and the pure culture into the other. Both died of tuberculosis, the one on which the iodoform had been used much later than the other.

In others he found that the iodoform mixture of the virulent culture, though not conferring immunity, always prolonged life. He therefore believes that, while iodoform is powerless to destroy tuberculous germs, it greatly modifies their action and limits their destructive power. On autopsy, he never saw as extensive ravages of the organs after injecting iodoform emulsions of the tubercle as when the pure culture was used.

Practically the same proportion of iodoform was used in the cultures of the various pyogenic bacteria. The staphylococci grew abundantly in the middle of the culture media, without any diminution of their energy or change in their biological or morphological character.

Now, the efficiency of the mixed injection of the staphylococcus culture and iodoform was tested on the living organism. These experiments gave more satisfactory results. In those animals into which hypodermic injections of the pure virus were made death followed within 36 hours, while those in which the iodoformized culture of the staphylococci was employed all survived.

To-day it is quite generally conceded, our author believes, that suppuration of microbial origin is produced by the chemical action of the toxine products of bacteria on the tissues. The researches of Grawitz, Barry, Scheurlen, Leber, Chrischuas and Steinmus he cites as definitely proving that the immediate cause of suppuration is bacterial; due to toxic products fabricated by the micro-organisms. This is demonstrated by the manner in which the intensity of germ action is modified by iodoform on the ptomaines; while the germ itself is quite untouched.

His experiments, he believes, have confirmed his hypothesis on the neutralizing action of iodoform on the toxines of micro-organisms of the pyogenic class.

His conclusions are as follows, viz:

First—Iodoform must be considered as an antiseptic.

Second—It exerts a positive influence on the tubercle bacillus.

Third—Iodoform introduced directly into the living organism with the tubercle bacillus, living and virulent, diminishes their action without opposing their development.

Fourth—Iodoform is not an antiseptic in the proper sense of the word, i. e.: It will not kill pyogenic micrococci, though it exerts an indirect action in suppuration. Put into direct contact with pus, it will not kill the germs, though it acts on the toxins; succeeding this action of iodoform, the germs lose their pyogenic properties and become inoffensive to the economy. This explanation is in harmony with chemical facts.

Clinical facts, it is true, are not in accord with laboratory experimentation. Heyer and Roosing, for instance, packed the vulva of a fat woman with iodoform gauze, and when they removed the gauze they found its meshes filled with microorganisms. However this may be, the fact remains that the surgeon knows from experience that he cannot yet replace iodoform with anything better; and until he does it must maintain its supremacy as a deodorizer and antiseptic of the first order.—Archives de Medicine. Experimentali et D'Anatomie Pathologique. 1st Nov., 1894.

FIN DE SIECLE TREATMENT OF GONORRHEA.

Among the numerous suggestions on the treatment of gonorrhea, with which the medical press abounds, none has appeared which is so entirely unique as that presented by Dr. Burnside Foster in a recent issue of the Journal of Cutaneous and Genito-Urinary Diseases. The method proposed is described as follows by the author: "As soon as may be, after we have established the diagnosis of a first gonorrhea, the patient should be etherized and properly prepared, a button-hole opening made in the perineum and drainage of the bladder established. Through a properly contrived apparatus the

anterior urethra could then be thoroughly flushed with any antiseptic or cleaning fluid and treated on surgical principles. The details of the local treatment would vary with the fancy of the operator. The feasibility of packing and distending the anterior urethra with iodoform gauze suggests itself to me; but any one of a great number of methods would doubtless be efficacious."

Electro-Therapeutics

IN CHARGE OF
DR. S. H. MONELL, New York.

A SHORT STUDY OF GALVANISM.

The four articles which have preceded this have been devoted to an illustration of "how not to do it," in electro-therapeutic work.

Some physicians, in reading them, may recall their own early essays in this interesting field, and knowing better now, may extend their sympathy to Dr. Holmes and his combination battery. I now propose to devote a short chapter or two to a study of such elementary facts regarding both galvanic and Faradic currents as may assist the beginner to understand the principles governing their application in medical practice.

There are three factors in medical electricity:

1. Electro-motive force, which depends upon the difference of potential at the two poles.
2. Resistance, which is the obstruction of the conductor to the flow of the current through it.
3. Current.

These three factors are measured, and bear a relation to each other which is known as ohms law; to wit, the current is equal to the force divided by the resistance.

The E. M. F. is measured in volts, the resistance in ohms and the current, for medical uses, in milliamperes.

The galvanic current is primarily continuous, but may be modified and interrupted. It possesses three great properties, to which arbitrary names are given; viz., cataphoresis, electro-

it is the coagulating or drying pole. lysis and catalysis. These names merely represent various sides of a complex influence of the current upon matter through which it passes, and not separate and independent properties. Applied to the actions of the constant current, passing in appropriate dosage through the tissues (solid or fluid) of the human body, these terms are useful if not exact.

The cataphoric action promotes osmosis. Electrolysis is the breaking up of chemical compounds into their separate constituents. Catalysis is a complicated phenomenon and really includes cataphoresis and electrolysis. It cannot be fully defined, but it is applied to that property of the current action which dilates the blood vessels and lymphatics, increases the powers of absorption of the tissues, promotes asmosia and, therefore, increases bulk, especially in muscles. To these effects are to be added the influence upon molecular exchange and nutrition due to exciting or soothing the nerves themselves, or the parts which they supply; also the changes in the molecular arrangement of vital structures and in their nutritive activity produced by the electrolytic action which takes place at the same time, and, finally, the consequences of the mechanical transference of fluids from the positive to the negative pole.

This so-called catalytic action upon the nutrition and circulation takes place between the poles; is in fact the interpolar action. More marked effects occur directly at the poles, especially when the active electrode is metallic.

One of these effects, and the most remarkable of any, is that known as electrolysis. This action differs so greatly at each pole as to necessitate separate consideration.

Operating within the human body, which is an electrolyte of an extremely complex character, the positive pole liberates oxygen and chlorine and collects acids (sulphuric, nitric, hydrochloric, phosphoric), and hence blanches, hardens and dries tissues. Thus in hemorrhagic states

In general the positive pole is anodyne, sedative, anti-congestive, denuitritive and hemostatic. It relieves congestion and pains depending on it. With a mild current its local action is styptic; with a stronger current it is a chemical hemostatic; with a still higher intensity it is caustic, and in excess of the limits of medical dosage it will boil water and cook meats. With milk currents the positive pole lessens the capillary circulation. Upon the nervous system it decreases the excitability and soothes a painful nerve. It contracts non-striated muscular fibre. It attacks metals, and is the pole employed in the various forms of cataphoric medication.

The negative pole, on the contrary, liberates hydrogen and collects the alkalies of the body fluids (sodium, potash, lime, ammonia), hence has a liquefying or hemorrhagic action. This is in part due to the electrical osmosis set up from the positive to the negative poles, pushing the liquid elements of the tissues along the track of the current flow. The negative pole, therefore, increases the capillary circulation, increases the irritability of a nerve, softens and dissolves tumors, exudates, contracted muscles, etc., and promotes absorption. The polar action of the negative galvanic current is stimulating, congestive, derivative and alterative, promoting absorption by liquefying the tissues. With a stronger current and bare metal electrode the effect becomes caustic. Metals are not attacked. The negative pole dilates non-striated muscular structures; strictures of all kinds promotes and increases the menstrual flow.

When an excessive current density causes a galvanic burn the eschar that results from the positive pole resembles that of an acid caustic, while the eschar from the negative electrode resembles that of an alkaline caustic. In dermatological work and on a very small scale these effects are produced at will, and the pole selected according to the nature of the eschar desired. In most cutaneous applications, and where covered electrodes are used, a burn

is a rare occurrence, and only a result of carelessness or accident.

Any practical physician who familiarizes himself with the determined effects of each pole, and applies the same rules which govern him in the selection of different drugs, will have little trouble in selecting the proper pole to carry out any plan of galvanic treatment. Few books that suggest electricity in any disease specify what pole to use.

There is good reason for this omission, and both the polarity and proper dosage can easily be accurately applied to meet the indications as they occur. The careful physician who seeks to become a fairly skillful electro-therapist must be instructed by experience in regard to dosage and technique. From text books may be obtained much information of general value, but nothing short of clinical experience will make a man a good prescriber of either drugs or electricity.

In most therapeutic applications the chief interest centres upon a single electrode and polarity. This is called the active pole, while the opposite pole is used simply to complete the circuit and dispense the concentrated current. The active electrode should be placed as nearly as possible in direct contact with the diseased structures to be treated by it, and the dispensing electrode placed so as to include the diseased tissues between the two. Refinements of application and dosage relate chiefly to the treatment of special tissues, mucous tracts, tumors, gynecological work, etc., where one of the electrodes is bare metal. Common applications of galvanic currents upon external surfaces do not require any particular difference in the electrodes or any special selection other than that indicated by the part to be covered and the conditions to be fulfilled in the treatment. External electrodes may be covered with any clean conducting material, except sponge, and for low currents felt or absorbing cotton answer well, and the density may be regulated by making the size of the electrode sufficient.

Knowledge of the proper dosage

will readily be gained by study and experience, the same way that knowledge of the proper doses of drugs is obtained. The number of milliamperes to be employed will depend upon several factors, such as the size and nature of both the electrodes used, the pathological condition and nature of the tissues treated, the effects desired and duration of treatment. According as these factors vary in relation to each other the proper dose is determined, so that a given number of milliamperes may be in one case a very large dose, in another case a moderate dose and in another case may be so small a dose as to be totally inefficient.

In a general way it may be stated that low currents and large electrodes are employed in ordinary applications where we wish the effects which belong to catalysis. We desire these effects when we seek to improve nutrition, promote circulation, to absorb effusions, to disperse glandular and other enlargements, etc. In these cases the range of milliamperes will vary from 5 to 20, according to the relation of the factors before stated.

In cataphoric medication we must employ sufficient current density to accomplish our results, viz., to convey the medication into the tissues. It is a matter of E. M. F. versus Resistance, rather than one of amperage, but here again, according to the condition of the application, the meter will register from 5 to about 30 milliamperes in different cases.

In negative electrolysis for the dilatation of strictures of the rectum, urethra and uterine canal a strong current would defeat the object of treatment, and only currents which are small in proportion to the size of the active electrode are allowable. The number of milliamperes will in most cases be under 10, and 2 to 5 is often sufficient.

To remove small superficial growths upon the skin or mucous membranes, such as nevi, warts, fibrous and hairy growths, etc., currents are employed which read in small figures, from a few milliamperes down to a fraction of one, but which represent a very considerable

current strength when the active electrode is a fine needle or a slender jeweler's brooch.

It is chiefly in gynecological work that the greatest range of current strength is required, and the application of more than 50 milliamperes is mostly limited to this field and to tumors. With bare metal electrodes both positive and negative poles are caustic above 50 milliamperes, and increasingly so as the amperage is increased. The styptic and astringent effects of the positive pole in its local polar action are obtained from 30 milliamperes or less, while the local polar action of the negative is only liquefying, softening, dissolving and relaxing with 20 ma. or less.

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Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

THE ANTITOXINE TREATMENT OF DIPHTHERIA.

The literature of the antitoxine treatment of diphtheria continues to grow apace, and the rapid extension which its employment finds in all parts of this country, as well as abroad, testify to its therapeutical value. It is to be regretted, therefore, that the introduction of the crude serum has, in the desire to meet the sudden demand created, been so far admitted into general practice.

The constant differences in strength, presence of noxious albuminoid bodies and other drawbacks, have given rise to complaints of inefficacy, occurrence of secondary effects and sequele, and even deaths; and although these may not destroy confidence in the remedy altogether, the use of such uncertain preparations tends to create confusion, and has already given rise to personal recriminations in the medical papers.

It is hoped that the representative committee selected by the Clinical Society to investigate these matters will make suggestions confining the

preparation of the antitoxine to properly qualified hands. At this juncture it cannot be too emphatically pointed out, once more, that antitoxine and serum are not synonymous terms; but that Dr. Aronson's antitoxine, with which the first results were obtained, and to which the earlier literature entirely refers, consists of the antitoxic principle isolated and separated from inert and noxious albuminoid constituents of the serum. The supply of Dr. Aronson's antitoxine is now restored, and will be continued without interruption, and that it possesses all its old qualities of great concentration and freedom from secondary effects or sequele is evident from the following case published in the British Medical Journal last week:

The patient, aged 26 years, was admitted to the Carlisle Fever Hospital on the second day of illness, with symptoms of diphtheria fully developed. On the next and following mornings 15 minims of Dr. Aronson's antitoxine was injected; it is noteworthy that each injection was followed by an initial fall of temperature, succeeded by a moderate rise toward evening. Already, on the second day of treatment, the patches began to disappear, and the albuminuria that was present prior to the first injection disappeared after the injection, though it recurred for a short time after 10 days.

Another most important point in connection with the preparation is its keeping qualities. Practical trial has shown that Dr. Aronson's antitoxine will keep at least six months without any deterioration, and it is free from the objection urged against the addition of carbolic acid to the injections, as the preservative agent is the harmless Trikresol.—The Therapist.

LEMON JUICE AS A HEMOSTATIC.

Dr. E. T. Burton (Wiener Medizinische Presse, No. 49, 1894) speaks highly of the use of lemon juice as a hemostatic. In a severe case of epistaxis, in a plethoric young man with copious hemorrhage from both nostrils, after injection of a solution of

lemon juice and water (1.4) into the nose with an ordinary glass syringe the hemorrhage ceased. In a case of hematemesis in a woman of 30 years, in whom all the usual remedies had failed the hemorrhage ceased at once after employment of pure lemon juice. It returned, however, the next day, but was rapidly controlled by the use of this simple remedy so that she rapidly convalesced. In a case of intestinal hemorrhage, in typhoid fever, it was also given with equally favorable results, for it ceased as if by magic. The patient died, however, from exhaustion. In the last two cases there was violent vomiting and everything except the lemon juice was ejected.

THE USE OF ALCOHOL IN DIABETES.

Hirschfeld (Berl. klin. Woch., February 4, 1895), discussed the question as to when alcohol in moderate quantity should be allowed, and when altogether prohibited. The author does not agree with the view that alcohol may be an etiological factor in the production of diabetes. In cases of diabetes closely investigated he found that the addition of a small quantity of alcohol (30 to 70 g. per diem) had no ill effect. The quantity of nitrogen in the urine was only temporarily increased. With the use of alcohol more fats could be taken, and hence the increased feeding is made more easy. In two cases with some albuminuria the addition of alcohol led to no increase in the albumen, but in one case the opposite fact was noticed. The sugar was noted at the beginning sometimes to be diminished, at other times to be decreased, but the original level was arrived at later. No change was noted in the acetoneuria. In cases where there is already cardiac weakness or vascular disease alcohol should be used cautiously. There is no danger of increasing the polyuria. Alcohol is a food stuff, and yet it may possibly injure the heart, vessels or kidneys. Cases are then given illustrating the different points in treatment. Beer is forbidden, as it contains the

most extractive matters, which are chiefly carbohydriates. If a certain amount of these latter are to be allowed they are much better given in bread and vegetables. All sugar containing liquors and sweet wines are, of course, forbidden. Wine, cognac, certain forms of brandy, etc., may be allowed. The author concludes that 30 to 70 g. of alcohol are thoroughly consumed in the body in these cases, that it does not interfere with the secretion of the urine or the absorption of food, and that metabolism is only temporarily increased. The general nutrition, however, is improved. Alcohol has no definite action on the tissue changes peculiar to diabetes. The state of the heart, vessels and kidneys should be borne in mind. The use of alcohol is only necessary in severe cases in order to ward off as much as possible by over-feeding the falling off in strength and the development of tuberculosis.

REMOVAL OF TATOO MARKS.

For obliterating tatoo marks Dr. Variot pours on the marked spot a concentrated solution of tannin, and works it into the skin by series of pricks, just as in tatooing proper. A certain quantity of tannin is thus introduced beneath the skin. He then rubs the part with nitrate of silver, and allows the solution of the salt to remain in situ until the prick marks show out as black points. The caustic is then wiped off, and the result is the formation of a black stain of tannate of silver. Inflammation is set up, and in the course of a fortnight scabs form, on the disappearance of which no trace is left of the original design, the only souvenir being a reddish scar, which in time becomes less visible. Various other plans had been tried without success, scarification, the introduction of opaque powders and caustics into the skin, etc. The tannin, in his operation, acts as a mordant and in no case did he have to deal with troublesome suppuration, although if the area be large it is well to do a piece at a time.—Medical Press and Circular.

Miscellany.

INTERESTING READING.

We present to our readers with this issue two articles of more than ordinary interest to the profession. One is the report of the epidemic of diphtheria in Berks County and the other the article from our Russian contributor on the Germ of Malaria.

These articles show a marked contrast, while they both are of great value. The one exhibits the endless toil of microscopic delving and theoretic deducing, but the other the earnest work of the clinician. Practical value lies in both, which will be of interest to our readers.

BASEDOW'S DISEASE.

Theilhaber has called attention to the frequency of uterine atrophy as a condition, consecutive to Basedow's disease. He had seen three cases. It had been observed, with equal frequency, in mild and severe cases. As the general condition of the patient improves the uterus regains its normal nutrition. The trouble, he believed, was of a vaso-motor origin, not a cause, but a consequence. —Societe Med. Munich, Gaz. Heb., Mar., '95.

TREATMENT OF DISTENTION OF THE FALLOPIAN TUBES WITHOUT LAPAROTOMY AND REMOVAL.

Dr. F. A. Glasgow (Medical Record) brings before the profession a method of curing tubal distension by means of intrauterine treatment, in contradistinction to laparotomy and removal. By this means the uterine ends of the tubes are made more patulous, and a discharge takes place from the tube through the uterus. He calls attention to the fact that the tubes, as far as his observation goes, are always pervious at the outer extremity of the cornu, hence when removing them we must always clamp them before cutting—the obstruction must be within the uterine wall, probably in the endometrium; and also to the fact that gonorrhoeal inflammation is not an

adhesive inflammation, and hence it does not follow that the tubes have a true atresia following this inflammation. His opinion is that the closure is due to a swelling of the endometrium, and hence a closure at the uterine end takes place. When this inflammation and swelling are overcome by pressure and antiseptics, the tubes become patulous again. The intra-abdominal pressure will cause fluid in any pendant portion of the tube to ascend into the uterus. The above procedure can be carried out in three different ways: (1) By gradually packing with gauze without anesthesia; (2) by rapid dilatation of the cervix and packing with gauze after curetting—this is done under anesthesia; (3) his own method of dilating by means of antiseptic or sterilized elm-bark tents. These tents are small strips of elm bark made just long enough to enter the cervix completely and not press on the fundus. They should be kept in an alcoholic solution of bichloride of mercury, 1 to 4000, and have a short string attached, by means of which they may be withdrawn. They are partially broken in a number of places, for the purpose of making them more pliable. They may be dipped into glycerin or water just before introduction. These tents may be used when it would be impossible to pack with gauze. He has treated 20 or more cases during the past year, and does not recall one in which he did not get some discharge from the tent. All of the cases were either cured or very much benefited. —American Lancet.

STERILIZATION OF DOCTORS.

It has been proposed by Gutmann that stations be erected in convenient localities in cities and large towns where physicians may go to be thoroughly disinfected immediately after they have visited a case of infectious diseases, and before paying any further visits. The operation will take about 15 minutes, and then the doctor may go about his business, proud in the consciousness of being clean and no longer a menace to the health of his fellows.—Annals Hygiene.

A LARGE GALL-STONE.

Dr. T. A. McGraw reports in the Medical Age a case of intestinal obstruction which was found on operation to be caused by a gall-stone completely filling the lumen of the intestine, at the junction of the jejunum and ileum. The calculus weighed 250 grains.

Wayside Notes.

By E. B. Sangree, M. D., Philadelphia.

A week or two since this journal reprinted an article on cleansing the nares, which had appeared, I think, in the London Lancet. I agree with the writer that daily cleansing of the nose should be practiced by all. Some say that nature has provided for the proper cleansing of the nose, and that this process should not be interfered with, except in cases of catarrh and the like. By the same token one should maintain that nature has provided for keeping the vagina clean, and that no woman should therefore use a syringe. Yet I fancy few physicians will be found who do not advise their lady patients to use the daily vaginal syringe. In an ideal atmosphere perhaps the nose would not need much cleansing, but until this ideal is attained it certainly does. It is with regard to the method that I radically differ from the English writer.

He advised that the performer should put his entire face in a basin of plain water and then snuff this thoroughly up the nose and blow it out several times; adding that the appearance of the water after this was done would be sufficient proof to anyone of the usefulness and necessity of the procedure. This method is so abominable filthy that I am astonished to see it put forward by a physician. Then, too, plain water is irritating to the Schneiderian mucous membrane; it causes pain because the specific gravity is less than that of normal mucous. The proper way to cleanse the nares is to use an atomizer, with a continuous coarse

spray, and the water should be rendered alkaline either with one of the alkaline tablets sold everywhere, or with a simple mixture of soda and borax. This addition increases the density of the water and makes it quite unirritating.

I might add that anyone who has used an alkaline spray in this way for sometime will probably afterwards feel it about as necessary and refreshing to wash the inside of the face every day as he formerly did to wash the outside.

If ever allowed to reach the light of day there would be little dull reading in the inside history of those hospitals that have a Lady Board to superintend the nurses and general economy of the institution, whilst the visiting physicians are allowed to prescribe for the patients.

There is still in this city at least one college with its attached hospital managed on the bipartite plan just referred to, and I am told there are some rencontres within those walls that would be more interesting than a detailed account of the Yalu River engagement or the battle of Ping Yang. In this case the college faculty constitute the visiting staff, and although while surrounded by the college walls they are monarch of all they survey, as soon as the hospital portals are crossed they find themselves barely on sufferance.

As a little example, for instance, of the clashing of authority, I am told that at a clinic the other day the surgeon ordered the nurse who had that matter in charge not to boil the catgut. The head nurse, however, knowing that such a procedure was not strictly aseptic, countermanded this order, and told the nurse to boil the sutures. As the nurse knew that the head nurse received her authority from the Lady Board, and that her own position depended on the dictum of her superior, she naturally obeyed the latter and boiled the catgut. When the surgeon learned what had been done he painted the arena red and blue, to put it figuratively, but—the head nurse still remains.

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SULFONAL.

BY E. W. BING, M. D., CHESTER,
PA.

This now well-known drug has in a comparatively short time attained a prominent position among the therapeutical means at our command. Its range of uses is probably extensive, although it has chiefly been known through its marked action as an hypnotic. Of this group of remedies it is considered at once the safest, most reliable and best. It differs from most of the other drugs of this class in that it induces sleep, which is natural, undisturbed and from which the awakening is also natural and unaccompanied by any unpleasant sensations, such as are commonly seen after sleep obtained by some other drugs. The explanation of this lies in its freedom from narcotic action.

Like all of the newer drugs, it has been tried in almost all diseases, but especially where insomnia or pain were an indication for some quieting drug. Unlike many other widely-extolled remedies, sulfonal has proved its merits and has "come to stay."

The literature on the subject is already becoming voluminous, and clinical reports are constantly being published, showing the success attending its use. In all sensory disorders, combined with insomnia, whether due to functional or organic disturbance, sulfonal always induces slumber, and where the insomnia is dependent on some functional disorder, the patient may on awaking be free from his trouble. The drug, beyond its hypnotic action, has many other effects, such as antispasmodic, analgesic, anti-neurotic and diaphoretic, tonic (in typhoid conditions by its primary hypnotic action) and

anti-diabetic. Taking these different actions seriatum, we find:

1. As an antispasmodic it is useful in all forms of pain due to muscular contraction, as in colic, cramp of muscles, hiccough, asthma, tetanus, etc.

2. As an analgesic it has proved valuable in neuralgias, colic from gall stones, pain following fractures or produced by nerve pressure in any locality, either from inflammatory exudation or from transient causes, as cramp of thigh muscles in labor or in choleraic conditions or in those painful cramps in the calves of the legs seen in chronic alcoholism.

3. Its anti-neurotic action is well illustrated by its beneficial effects in epilepsy, hysteria, etc., in which is not only controls the attacks, but at the same time lessens the liability to them. The irregular and involuntary movements of chorea are likewise controlled.

4. Its anti-diaphoretic action has been illustrated in the prevention of the night sweats of phthisis, where a dose of a few grains will generally give a comfortable night without the discomfort produced by the sweat. It has been reported as beneficial in diabetes, diminishing the sugar and the excessive quantity of urine.

From these reported successes it is plain that sulfonal is a very valuable drug, whose application is both extensive and advantageous. In influenza its effects are very good; it relieves the muscular pains and headache, promotes sleep and removes the chilly sensations. In a case of valvular disease sulfonal was given to induce sleep, which it did very satisfactorily without any action on the circulatory organs. In a case of severe headache, accompanied with a peculiar hysterical condition with loss of consciousness, the attack

lasting about 10 minutes and coming on at irregular times, but always following mental exertion, sulfonal appeared to be the only remedy capable of relieving the symptoms. A severe trigeminal neuralgia, which had resisted the usual means, hot applications, morphia, belladonna, quinine, etc., promptly vanished after a single five-grain dose of sulfonal. A case of painful menstruation, with marked pains and nervous symptoms, was relieved at once by a dose of sulfonal. Many instances might be mentioned showing the success in treatment by this remedy.

One of its advantages, and a very important feature, is its ability to supersede opium and its derivatives in almost any case. It is free from the liability to cause a habit, since its use can be suspended at any time without creating a craving for it, as, unfortunately, so easily occurs with opiates. A few cases in which sulfonal proved useful are subjoined:

R. W., male, aged 38, had heart trouble, aortic regurgitation, which did not cause much annoyance until compensating hypertrophy began to fail. There was also a chronic bronchorrhoea. The patient became much emaciated, was troubled with insomnia and with a constant pain in the right side, the nature of which was not satisfactorily shown. Bromides were given, as was also morphia, to induce sleep, but both failed in their action or did not agree with patient, while sulfonal in small doses gave a good night's rest and some relief to the pain.

K. D., male, aged about 58. Afflicted for about a year past with headache, which after lasting a little time produced a kind of epileptoid, there being unconsciousness with a convulsive "catching" of the respiratory muscles and moaning. Patient falls is not supported. Sulfonal in this case has appeared to be beneficial, and not altogether by its hypnotic action.

K. M., female, aged 13. Pain in abdomen due to spasmodic colic; various other antispasmodics and household remedies had been tried without effect, and sulfonal was then given, which in a short time gave complete relief.

ON A MODIFICATION OF THE "INVAGINATION" METHOD OF OPERATING FOR THE RADICAL CURE OF HERNIA.

BY JOHN H. PACKARD.
(Philadelphia.)

I think it can hardly be necessary to enter into any argument as to the desirableness of effecting the radical cure of hernia in every case where it is possible. My own experience is that there is great difficulty in getting trusses properly fitted, as well as in having them properly applied by the patients. Yet a truss badly made or wrongly put on may be worse than useless; it may cause suffering, and even danger to life.

A radical cure can be accomplished only in one way: By doing away with the sac as such; by obliterating the tube of peritoneum, like a glove-finger, through which the descent of the bowel or of omentum takes place. This is the object aimed at in all the proposed procedures, which are very many. Sedillot, in the edition of his *Médecine Opératoire* published in 1855, enumerated 25, and his list was not then complete. The number has been very largely increased since that time, and especially, of course, since by the introduction and general adoption of antiseptic methods, the dangers of such interference have been in great measure set aside. Modern surgeons have suggested and put in practice much bolder modes of dealing with the problem than could formerly have been employed. By some, as Banks and McBurney, the sac is ligated and cut off as high up as possible. Barker cuts it off at the external ring and carries the stump up to be sutured into the internal ring. Ball twists it up and applies an intercolumnar suture. McEwen and

*Read before the Philadelphia Academy of Surgery, February 4, 1895.

Bishop crumple it up by means of "drawing-string" sutures. Bassini's and Halsted's plans are to make a new canal and a new ring; Landerer makes a plastic operation, transplanting one of the columns of the external ring. Kocher carries the sac away from its position, angulating it twice, bringing it out through an artificial opening in the tendon of the external oblique muscle, and then twisting it.

I do not propose to discuss these various methods, but venture to suggest another plan by which the hernial canal can be closed, I believe securely and permanently, and the object accomplished in a simple way.

I think it may be laid down as a sound rule of surgery, that in all operations there should be as little sacrifice and as little disturbance of the parts as possible, consistently with the attainment of the desired end.

A recent writer says that there are two requisites for an operation for the radical cure of hernia. "1. Complete elimination of the peritoneal funnel, of which no trace must be left in the canal. 2. The firmest union of the rent in the fibrous layers of the abdominal wall that can be obtained." He then states that "a proper operation requires the hernial canal to be laid open throughout its whole length up to the level of the internal ring, and the neck of the sac and the peritoneum beyond the internal ring to be completely loosened and dissected free for some distance beyond. Thereafter the walls of the canal must be accurately sutured and brought in the closest possible apposition." In other words, he would first lay open the abdominal wall, and then close the rent as firmly as possible. But would it not be better to avoid making the rent unless it is absolutely necessary to do so?

I think we can do away with the sac as such without any destruction of its tissues, not eliminating it or laying it open, but simply making use of it, converting part of it into a solid plug, and fastening it into the canal at its inner end, sacrificing nothing. Such invagination of the

isolated sac is the essential principle of the procedure which I wish now to describe.

It will be remembered that there were in vogue many years ago a number of invagination methods. Of these perhaps the best known was that devised by Gerdy, but modified by Wutzer, and generally attributed to him. All these methods consisted in pushing up the sac along with a considerable amount of the surrounding tissue; and my belief is that to the want of isolation of the sac, and the consequent drag upon it, many failures in cases at first promising should be attributed.

Some successes were, however, attained. I operated in 1863, by a method substantially that of Wutzer, upon a young man who was desirous of entering the U. S. Navy, but was prevented by the fact that he had a right inguino-scrotal hernia. He afterward gained his appointment, and three years later was doing duty as a third assistant engineer, the rupture giving him no trouble. Two other cases, on which I operated in the same way at about the same time, passed out of my observation before the results could be determined. And the risks and uncertainties of all such procedures were then so great that it seemed imprudent to undertake them unless in exceptional instances.

I have already said that the method which I wish now to describe consists essentially in the invagination of the isolated sac. No one feature of it, I believe, is entirely new; but as a whole it has not to my knowledge been proposed by any one else.

I expose the hernia by a curved incision, describing a semicircular flap of ample size. This I also do in operating for strangulated hernia, as it carries the cicatrix away from the seat of trouble, which is afterward covered in by sound skin. (I have several times noticed, however, that in the final healing the scar is drawn over so as to form a straight line between its two extremities.)

The sac being laid bare is isolated from the external ring down to its tip. Sometimes it is better to empty

it during this process, which may often be accomplished by tearing with the fingers. Bassini's advice, to begin the isolation at the ring and to proceed downward, is, I think, generally to be followed.

In order to secure control of the empty sac I now pass a silk thread through its wall at either side; the two ends of each are left long, and caught in hemostatic forceps.

With the forefinger of the left hand the tip of the sac is now inverted and pushed up as far as the internal ring, or as near it as possible.

Next a slightly curved needle, with an eye near the point, and armed with a thoroughly sterilized silk thread, is passed up along the finger as a guide, to be pushed out at one side of the tip through the tendon of the external oblique muscle. One end of the thread being caught, the needle is withdrawn slightly, and again pushed through the tendon at the other side of the tip. The other end of the silk thread is now detached from the needle, which is wholly withdrawn, and the two ends, left slack, are caught together in a hemostatic forceps.

Now, by means of the two lateral threads, and by grasping in the fingers, the double sac is drawn down carefully, and with a small curved needle a fine silk suture is passed through it from side to side from below upward as far as possible, and then from above downward, so that its two ends, when drawn tight, will crumple up the sac into a solid mass. These ends are tied and cut off short.

The lateral threads are now removed, and the other silk thread is drawn up tight, pulling the plug formed of the sac into place at the internal ring; its two ends are tied on the outer surface of the tendon of the external oblique, and cut off short. The skin-flap is laid over in place again, the wound closed by sutures, and the ordinary antiseptic dressings applied.

Until the wound is completely healed the patient is kept in bed. I have not put a truss on any of the patients recently subjected to this operation, but have cautioned them against making any muscular effort

likely to bring undue stress upon the parts until time enough has elapsed for their consolidation.

As to the ultimate results of this operation I have no cases of sufficient duration to enable me to speak positively. A man, aged 22 years, operated on October 24, is present for your examination this evening; he does full work as an orderly at the Pennsylvania Hospital without either truss or discomfort. To my disappointment, a boy, aged 12 years, operated on December 12, has failed to be here; there is no sign of yielding of the plug, though he is running about as heedlessly as any boy of his age. A man, aged 49 years, operated on at the same time, seems also to be completely relieved. On January 10 I operated on a man aged 54 years at St. Joseph's Hospital; he has since had a severe bronchitis, but his hernia seems entirely controlled, and he is now going about freely. Another man, aged 32 years, in the Pennsylvania Hospital, operated on January 7, is still under treatment.

Of four other cases, including the first one, operated on in September, 1890, I will not speak, as they passed completely out of my knowledge too early for the results to be determined.

I am well aware that my array of cases is very small, but the first two mentioned and the fourth afforded pretty severe tests of the efficiency of the closure of the canal. I offer the method as one which seems to me sound in principle and promising well; moreover, in case of its failure, the parts are in condition for the repetition of this procedure or for the adoption of any other that may commend itself.

Of course, there must be an exercise of judgment as to the suitability of any mode of operation in any given case. I think there would be difficulty in adopting the one now described in cases of congenital hernia; and whenever for any reason the sac must be extensively opened it would have to be carefully sutured before invaginating it. And I believe that it might not answer well if the canal and internal ring were very wide.

AN INTERESTING CASE OF RAPID SPEECH DEVELOP- MENT IN ADULT, FOL- LOWING OPERATION FOR TONGUE-TIE.

BY G. HUDSON MAKUEN, M. D.

Read February 13, 1895, before the
County Medical Society.

Gentlemen: The patient whom I shall show you this evening is 19 years of age, a farmer by occupation, and up to within 11 months he has been utterly unable to use articulate speech in a manner which could be understood. He had been examined by local physicians and had been made to believe that his trouble was of central or cerebral origin, and that nothing could be done for him. The feeling that he was thus cut off from this chief means of communication with his fellows had completely disheartened him.

He had attended public school with other boys, and with the aid of his friends at home had managed to make some progress in arithmetic and to acquire a very slight theoretical knowledge of our language. He seemed to understand a little ordinary conversation, and learned easy lessons in history and geography by having them read to him. He would attempt to talk and recite in school, but his teachers had to guess, for the most part, at the meaning of his jargon. For myself I do not recall a single word that was at all intelligible. The first time he came to my office he could not make the conductor on the train understand the name of the station at which he lived, and after frequent attempts he was obliged to write it out, which he could do very imperfectly, for his spelling was almost as bad as his speech.

With a history of this kind, and being deprived of that greatest of all means of mental development—speech—you will be prepared to believe that he had acquired a reputation, even among those who knew him best, for listlessness and stupidity. Indeed, his aunt, with whom he came, had given up all hope of making anything of him; but the

boy, discouraged as he was, seemed determined to make one more effort, and he was thoroughly in earnest.

Upon examination of his vocal and speech organs I found only a slight post-nasal catarrh and some little hypertrophy of the faucial tonsils. Of course, I thought immediately of the probability of his being tongue-tied, but his aunt assured me that there was nothing of the sort. I found, however, that he could protrude the tip of the tongue scarcely beyond the outer margin of the lips. The tip seemed a full inch or more too short, and, strange to say, the frenum did not appear to be a very decided factor in holding it down or back, for in his attempts to protrude the tongue the frenum was not greatly stretched. The trouble seemed to be a muscular one, and this I believe to be the case. The anterior fibres of the geniohyoglossus muscle were too short, and prevented not only the protrusion of the tongue, but any other free action of that member. He could elevate the back part of the tongue and make the hard G sound or the NG sound, but he could make no sound whatever which required the placing of the tip of the tongue to the roof of the mouth or the upper teeth. He made the K sound for T and hard G sound for D. As an example, he said "ik" of "it," and when I asked about his parents he said they were "gay"—meaning that they were dead. Furthermore, there seemed to be no method in his speech; it was a mere jumbling of inarticulate and unintelligible sounds, and the expression of his face was in perfect harmony with his speech—vacant, staring, meaningless.

The boy being somewhat delicate, and his friends being decidedly opposed to operative measures, and the cause of the trouble being doubtful, I decided to study the case carefully before giving an opinion or recommending methods of treatment. I gave him some vocal exercises for a few days and watched the results, after which I clipped the frenum of the tongue well back.

I then put him in the hands of a teacher, who gave him, under my

direction, several hours' vocal drill each day for several months, during which time he made considerable improvement in sounds and words which did not require free action of the tip of the tongue. By this time I was convinced that the trouble was entirely a local one, and that the boy was of more than average intelligence and well worth developing. I then decided to divide the anterior fibres of the geniohyoglossus muscle, and thus try to give to the tongue the necessary freedom of action. His people would not give their consent to etherization, for they were skeptical as to favorable results from any measures whatever. The boy, however, was desperate, and would submit to anything which promised relief. We took the matter into our own hands, therefore, and with cocaine anesthesia I made an incision under the tongue of three-quarters of an inch in the antero-posterior direction and one and one-half inches from side to side. There was considerable bleeding, which was easily controlled, and, of course, there was also some pain.

He came to my office each morning for five days thereafter, and I broke up little adhesions which had formed and practiced slight lingual traction. On the morning of the sixth day he came in a great state of excitement, and with much pain, which he referred to the region of his tongue and throat. The tongue was greatly swollen, filling the entire mouth and protruding between the lips. He had a temperature of 103 degrees. The larynx became involved to the extent of threatening suffocation, and I thought it would surely be necessary to open the trachea, which I made all preparations to do, but after succeeding in giving him a brisk purge the inflammation gradually subsided and the breathing became less laborious. He was confined to bed for 10 days, after which time he practiced frequent lingual traction and vocal exercises directed toward a free action of the tongue. His improvement from this time on has been most wonderful. Here we have a young man, 19 years of age, who less than a year ago could not pronounce

intelligibly more than three words of our language, could not buy a morning paper nor tell you where he lived, and could not give his name to save his life. What he can do to-day, with your permission, Mr. President, I shall try to demonstrate to you. I shall ask him to recite in your hearing Brutus' speech against Caesar.

THE ADVANTAGES OF AMPUTATION THROUGH THE KNEE-JOINT AND THE AVOIDANCE OF THE TOURNIQUET WHEN THE VESSELS ARE ATHEROMATOUS.

BY DE FOREST WILLARD, M. D.
(Surgeon to the Presbyterian Hospital.)

The disadvantages of the use of the tourniquet when the vessels are atheromatous are obvious. The constriction causes not only minute fissures in the walls of the vessels, but it may even fracture them, and in either case it tends to develop arteritis, subsequent loss of vitality in the flaps, and secondary gangrene. At the same time the cases presenting this condition are frequently old and feeble persons who are seriously exhausted by the local condition of gangrene, presenting other evidences of obstructed vessels, and can ill afford any loss of blood.

Gangrene occurs most frequently in the feet and legs, and for such condition amputation in the neighborhood of the knee-joint, or at the thigh, is advisable since, after leg amputations the diseased conditions frequently return.

Amputation through the knee-joint can be performed with less hemorrhage than at any other portion of the limb, since, in the neighborhood of the knee, all the vessels in front are small and can be readily caught with hemostats as the anterior skin-flap is cut. The tendopatellae, the lateral and posterior ligaments can all be divided without serious hemorrhage. We then have the limb hanging by the posterior bridge of soft tissues, which bridge contains the large vessels, and can be easily caught by the fingers of an

assistant; in fact, it is now a perfectly simple matter to expose the popliteal artery and to test its pulsation to discover whether it is actually pervious, then to expose it just enough to carry around it a bundle of catgut ligatures, four or five, which ligatures are tied just sufficiently tight to bring the inner coats of the vessels together and not to crush them.

Sometimes the popliteal artery will be found thoroughly plugged, necessitating the working up in the posterior flap for a considerable distance before a pervious vessel will be found.

The popliteal having been tied, the flap is firmly grasped to control the smaller arterial branches, and the posterior flap quickly cut of the desired length. The operation is practically bloodless.

Should the artery be impervious, it may necessitate an amputation higher than the joint itself. The tissues now can be pushed back, the periosteum divided above the condyles, and stripped back from the femur to the desired distance without loss of blood and without injury to the soft tissues. The femur is then divided opposite the point of ligation, and the wound, dressed antiseptically.

By thus stripping back the tissues subperiostically an amputation in the lower third of the thigh can be performed with but little loss of blood and without injury to the vessels by any form of constricting band. It is a plan equally well adapted to traumatic cases with atheromatous vessels.

The knee-joint region should then be the site of election. A broad ligature loosely tied is the best.

PECULIAR WEDDING LAW.

In Waldeck, a little German principality, a decree has been proclaimed that a license to marry will not be granted to any individual who has the habit of getting drunk; and if one who has been a drunkard applies for such license he must produce sufficient proof of reformation to warrant his receiving it.

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SEROUS CYSTS AND CYSTIC FORMATIONS.

Not infrequently serous cysts or neoplasmata of this character are mistaken for serous accumulations within cavities, notably in the abdominal cavity and in the scrotum. A man has an enlargement, which gives many of the characters of a genuine hydrocele. It transmits light, is irreducible and gives issue to a watery substance when the hypodermic needle is used for exploring purposes. In advanced chronic cases of hydatids of the liver, hydro-nephrosis and various pelvic cysts of the female, by an indifferent, cursory examination, we may mistake any one of them for ascites; from hepatic, renal disease or chronic peritonitis.

But it is of considerable importance that these liquid tumors are definitely recognized, as in most instances they may be promptly and radically cured, thereby sparing the patient great mental apprehension

and protracted bodily suffering. We have one case in mind, in which a voluminous retro-peritoneal cyst was heroically treated by a practitioner of prominence with hydragogue cathartics and diuretics. Later the case came under surgical care and was correctly recognized; the peritoneal cavity was opened, the cyst walls widely divided and their endothelial lining well sponged with a strong solution of chromic acid. Recovery was prompt and the cure permanent.

Cystic disease of the spermatic cord occurs at two extremes of life—in infancy, when the tumor commonly rises close to the external ring and may be mistaken for hernia, as a rule undergoing spontaneous cure with the growth of the child; and, later, in advanced age, taking origin close to the epididymis, attaining great volume, mounting up the inguinal canal, as far as the internal ring in some cases.

The repeated tapping of these is of no value other than affording temporary relief.

Their proper treatment consists in their enucleation, a comparatively simple and always permanent measure of relief. With serous formations proper we will always have either an organic or constitutional condition to treat.

SHOULD THE RAILWAY SURGEON CONSIDER THE QUESTION OF COMPENSATION FOR INJURIES?

We have recently read a paper and discussion on "The best methods for approximately determining the amount of damages sustained by traumatism from a monetary standpoint," being an endeavor upon the part of the surgeon to determine an approximate monetary damage for personal injuries, the multitudinous and varied effects of injuries being considered upon a money value from a surgeon's standpoint. While the paper is ably written and honestly expressed, still we doubt the policy,

propriety and good sense of the surgeon assuming such a menacing function.

Neither law nor common sense demands of the surgeon the assumption of uncertain, equivocal and officious duties. When the surgeon deals with the question of compensation in personal injuries upon railways or elsewhere he is entirely out of the realm of his duty. It is not and can never be a part of his duty. The practice can only lead to disrespect, suspicion and contumely. The law has for ages considered the varied phases of compensation in its complete and exhaustive way, and the question of compensation is only in the field and function of law, and has no proper place in medicine. The surgeon is only one of the agents used by law to determine the most just and equitable assessment of compensation. All that is legally required of him is a truthful opinion regarding extent of injury, whether an injury is permanent or not, and the degree of permanency. His duty never requires him to place a money value upon any injury nor even to assist by suggestion a speculative barter in human suffering. It is just such attempts which have brought obloquy and contempt upon railway surgeons and others.—*Railway Surgeon.*

To all of which we say, amen!

No surgeon of established reputation will degrade his professional status by trespassing on the legitimate domain of the law. The moment he commits this mistake he violates one of the fundamental principles of his profession and becomes nothing less than a mere hucksterer, beneath the contempt of all honorable practitioners.

The physician who violates the confidence of his unfortunate mutilated patient, whom he is called on to treat in the interest of any individual, railroad or corporation, should be denied the association of all honorable men. It certainly augurs well for the future of railway surgery in the United States, Canada and Mexico that its official organ and mouthpiece has come out boldly, and repudiated the calumny that "for a

miserable annual pass, or little more, a large number of practitioners have banded themselves together under the self-styled title of 'surgeons' to interfere with the righteous settlement of claims between the public and railroads." No! a straightforward and honorable course in the end pays the best. The old proverb, "Let the shoemaker stick to his last," applies well here. Let us hear, then, in the future more from the Railway Surgeon in the direction of advanced science and less of this "dickering" with matters which partake of a legal character.

WHAT IS THE WORTH OF A NAME?

To lend one's name for the benefit of a good thing is not only a pleasure, but adds to one's reputation for knowledge. However, to lend one's name for the benefit of a thing which one really knows nothing about places him a position where he is liable to become a laughing-stock among his better-educated fellow-men.

We see so often the names and faces of prominent political men represented among those pages of the daily papers which are devoted to the advertising of some patent nostrum, as advocating the use of so-and-so's nervine, tonic or kidney cure, that we wonder if these persons realize how foolishly they appear when linked with such associations.

No doubt the proprietors of these various preparations pay well for the use of such names as they obtain; persons would be very unwise not to obtain some remuneration for the smirch which necessarily must attend the publication of these advertisements. We fail, however, to see wherein the real benefit lies, when one considers his whole duty to his fellow-man.

There is no doubt that most of those who subscribe to the recommendation of these patented medicines do so without the least idea of what such medicines are composed. When one goes to a physician and gives the latter a history of his

troubles he pays for the advice received, and trusts the educated knowledge of the professional man to intelligently prescribe whatever he needs to assist in the recovery. How different when one takes a patent nostrum. In the latter case the patient, if he can be called such, undertakes to diagnose his own malady, not knowing the first principles of medicine, and apply some patented remedy (?) because he reads in the advertisement of a newspaper that Governor Blank and Mr. Help-em-recover, the eminent judge, has been cured by two bottles of Dr. (?) Cheatem's specific.

Such a lending of names occurs every day, and may be seen in any of our prominent daily papers. We cannot so much blame the newspapers for receiving the advertisements as those who ought to know better for lending their names to them. What does Governor Blank know of the composition of the remedy (?) he is lauding? Does he know that it will cure "that tired feeling which comes from nerve exhaustion, caused by overwork?" Does he know that he has become tired from overwork? Can he positively assume that the patent stuff he may have taken has restored his nerve power, rather than the good food and needed rest which he has also taken when he has found that outraged nature would stand imposition no longer? Does he also know that the appearance of his name in these advertisements tells in so many words that the greatness of his reputation is only exceeded by the ignorance he displays in praising a thing of which he has no intimate knowledge, nor can have, because the preparation is kept a secret.

Thus it is that the good names of many of our prominent political men and others are dragged in the dust of ridicule, because in an unguarded moment they have been induced to become the prey of a scheming patent medicine man, who advertises his secret nostrums in the daily papers.

Regarding the nostrums there is only one thing to say, but fortunately that expresses much—they are made to sell.

Correspondence.

LETTER FROM BERMUDA.

As we bask on the green sward fronting our transient winter home—"Victoria Lodge"—in the summer sunshine and balmy breeze of this lovely little land, and read what the cable tells us of the blizzard-like winds, the snow and the cold that have swooped, the past week, on luckless doctors of the North, we wonder that more of them do not come to enjoy the varied mid-winter scenic and climatic delights that obtain here more largely than in any other country of which we know. Only one reason—apart from that of inopportune time—can be given, and that is they do not realize what an Elysium lies almost at their office door, within a two-days' sail, although 700 miles away from the Western world metropolis; a petite paradise, where flowers bloom the year round out of doors, where malaria never comes, where frost and the white mantle of winter are unknown and where the sleep-giving, health-bringing breezes, the panoramic beauty of sea and shore and the quiet, restful, lotusland-like life combine to make halcyon days.

This group of coral islands—365 in all, though many are so small as to be compassed by the shade of a single tree, and only the five largest are tenanted—makes a country shaped like a shepherd's crook, about 20 miles long and from less than one mile to two and a half miles wide. They form a reef round a lagoon, the coral structure resting on a submarine mountain of volcanic origin, a lonely cone rising three miles from the ocean bed. The area is 16 square miles; the population 16,000. Hamilton, the leading town, contains 2000.

They are 800 miles opposite South Carolina, and until the placing, in July, 1890, of the cable to Halifax, Bermuda was the most isolated spot on the globe, save, possibly, St. Helena. Protected and favored by the

gulf stream, it enjoys a happy mean between the extremes of heat and cold—ranging from 50 degrees in winter and 86 degrees in summer—making Bermudians claim their climate the most equable in the world—a claim which temperature tables, including the more variable ones of our most noted American resorts—Jacksonville, St. Augustine, Los Angeles and San Diego—fully attest.

As a rule, October, November, April, May and June are most delightful. Often, however, in December, January and February the weather much of the time is charming. March is the worst month, when east winds, low barometer and thermometer and frequent showers are apt to prevail. The porous soil admits of outings soon after a heavy rain. As in England, mornings often betoken a stormy day, but the clouds roll by to a beautiful afternoon. May and June, as regards climatic conditions and the floral beauty of forest and field, offers special attractions. The time of greatest thermal charm in Bermuda, however, is when its dolce far niente climate is in strongest contrast to the wintry rigor of our own.

The health of these islands is almost always good. A healthful October presages a healthful winter. There has been no epidemic in many years. The greatest mortality is under 5, and, among the blacks, largely due to neglect. Long lives—85 to 95—are not uncommon. There are nine resident medical men. Quarantine regulations are careful and complete.

Through the effort of Dr. Harvey, one of Bermuda's leading physicians, a handsome cottage hospital has been built about a half mile from Hamilton. It may prove of much value should contagious disease occur among visitors. Nine-tenths of its cost was given by Americans. It is now doing good work, with a demand for its service larger than can be met, and more room is needed. The nurses in charge are graduates of American training schools, and their skilled attendance is at command of those ill anywhere in Bermuda when the local service will

admit. Great credit is due Dr. Harvey for this good work.

A new health act, passed by the Bermudian Parliament last autumn, went into effect the first of the year. The Health Board consists of five members, and in having one a physician—Dr. Wilkinson—is a decided advance on the former Board, which was made up entirely of non-medical men. The Governor has appointed Dr. Harvey to be Health officer. Under the act he cannot engage in general practice, but may serve as consultant. What with his new duties, those of Insane Asylum superintendent and his care of the Cottage Hospital, he is not likely to find himself much of a Micawber.

"Sunnylands," the "flowery kingdom" of Dr. Outerbridge, is a picture; a thing of beauty; a floral symposium in red and white. Chinese lilies abound and their balmy odor scents the air. It is one of the show places of Bermuda. Nowhere else is there now such a wealth of flowers, and to the sights that charm, the courteous welcome of its owner makes an added pleasure. No outing in Bermuda is complete without a call at Sunnylands.

With the coming of April will come the lilies, and what a charming scene they present in fullest season, filling whole fields, making a picture beautiful and unique. Then the roses, the oleander and the geranium, to say nothing of other flowers, each adding to the sensuous delight. The floral adornings, and so abundant, form one of Bermuda's greatest charms.

The Sunday morning service at Camp Prospect, about a mile from Hamilton, still serves to attract many. And well it may. Where a service with such surroundings? Where an outlook so charming, so unique as obtains from the camp plateau? What a superb blending of sea and sky, and where a waterscape so studded with evergreen isles? Nowhere, in all our touring, at home or abroad, have we seen it.

The open-air band concert at the close of the camp service continues to please. A specially enjoyable programme was given the morning after

our arrival, and the attendance was notably large. Mr. Barwood still holds the baton. This is his last season in Bermuda, as next autumn he goes to Halifax. His absence will be regretted. His courtesy to me along musical lines has been marked and frequent, and it is an added pleasure to re-express my appreciation.

And what a delight these concerts are. To sit in open carriage or on the green grass of a cedar grove near the camp where they are given, in the sunny, balmy air of midwinter and listen to the post band of 50 pieces, is one of the many attractions that lure denizens of the North to this little wonderland at sea.

A very attractive excursion is now at command of medical men and others wishing to make a tropical tour. Leaving New York on the Trinidad, Bermuda is reached in two days. From here the steamship Alpha, of the Halifax Line, sails on the 19th of each month for Jamaica. From there the steamship Beta leaves the 6th of every month for Havana, where close connection is made with Tampa, Fla., and thence home by boat or rail.

With our coming came the largest lot of tourists ever brought to Bermuda before Christmas. The arrival of so many thus early augurs well, for it may be, as is hoped, the beginning of the end of a senseless custom of waiting till late February or March, and then crowding steamer, hotels and boarding houses to discomfort—a sort of fad that deprives very largely those questing health or pleasure of the climate conditions that have so much charm to fleers from the midwinter cold of the North, or those seeking relief from the ills that betide restless, rushing Americans in the shape of tire, insomnia and the madhouse.

I have long held, and still hold, more strongly than ever, that the greatest good to be gotten in this lovely land will never be had till those needing the sleep-bringing, brain-resting, brawn-building aids with which it is so lavishly equipped, come early and linger long. To many it is now merely a Mecca of pleasure, but there is little hazard in saying

could the thousands of nervous invalids dragging out a more or less wretched existence, because weary or wakeful, be brought to realize the health-laden bounties that here present, this little dot on the wide waste of waters would be crowded as it never has been.

For insomnia, Bermuda is unique to do good; for many, a peerless place in which to woo and win the good angel of sleep. It is a happy land for the neuralgic and those coming back to health from acute disease. It is not the place for consumptives nor any far advanced in wasting disease. For the weary and worn, for the tired pilgrim along any line—be it brain or brawn—it is, indeed, a Mecca to which he can come with high hope of getting rest and relief.

Six sojourns in six seasons have put me quite en rapport with the many charms that make Bermuda for me—though I have been abroad again and again—the most restful place on earth.

Bermuda is good, too, for those not ill. Let the American doctor take a fortnight off, and a 10-days' sojourn in these sun-lit isles, and, my word for it, if conditions favor, he will lay in a store of happy memories for many a time to come.

J. B. MATTISON, M. D.

Hamilton, Bermuda.

Book Reviews.

THE MEDICAL ANNUAL AND PRACTITIONERS' INDEX, 1895.
Published by John Wright & Co., Bristol, Eng. Price, \$1.50. E. B. Treat & Co., New York, Agents.

The scientific information contained in the yearly volumes of this work keeps abreast of the times. Detailed information regarding new remedies is carefully noted, with the therapeutic value and indications of each.

A very valuable part of this work

is an article on eyesight and school life, by Simeon Snell, F. R. C. S., with photographic illustrations of school children, in reference to light, position and hygiene of schools.

We also note a paragraph on Friedreich's disease, by H. W. G. Mackenzie, M. D., and an article on idiocy, with the results of thyroid treatment in sporadic cretinism.

Not the least interesting in the book is a detailed account of the treatment of diphtheria by antitoxic serum; by Armand Ruffer, M. D., and one on sanitary science; by Joseph Priestley, M. D.

The work is an epitome of the advance of medical science during the year 1894.

THE IMPORTANCE OF ACTIVE TREATMENT OF THE NASOPHARYNX, IN THE TREATMENT OF OBSTRUCTIVE DISEASE OF THE LACHRYMAL PASSAGES. By C. A. Veasey, M. D., Philadelphia, Pa. Reprint from the Ophthalmic Record, March, 1895, Vol. IV, No. 9.

RIPENING OF IMMATURE CATARACT BY DIRECT TRITURATION. By Boerne Bettman, M. D., of Chicago. Reprinted from Annals of Ophthalmology and Otolaryngology, Vol. IV, No. 1, January, 1895.

SHOULD TUBERCULOUS PATIENTS BE QUARANTINED? By William A. Dickey, A. M., M. D., Tiffin, O. Reprinted from The American Medical Compend, January, 1895.

APPENDICITIS FROM THE STANDPOINT OF THE GENERAL PRACTITIONER. By Wm. A. Dickey, A. M., M. D., Tiffin, O.

NERVOUS DISEASE IN EARLY SYPHILIS. Read before the Chicago Academy of Medicine, October, 1894. By G. Frank Lydston, M. D. Reprinted from The Journal of the American Medical Association, February 9, 16, 23, and March 2, 1895.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

ON THE LOVE OF NOVELTY.

Mitchell Banks (British Medical Journal, October 20, 1894), in opening the section of surgery in the meeting of the British Medical Association called attention to the prevailing desire of those who wished to advance in their profession to advance suddenly into prominence by some bold, new feat. The bad results of such a course are shown by recalling the fate of the clever, intellectual Athenians, who "fell beneath the stern and steady Roman, and were but women in the eyes of Alaric's savage Goths." He claims it leads to dishonest statements as regards results, and the following words of Jacobson are quoted with approbation: "It is too much the fashion among the younger generation of professional men to associate eminence in surgery with some new method of procedure or some brilliant achievement in the way of an operation never thought possible. It is not remembered that the day after tomorrow the method will be supplanted by another, the operation will be discarded as useless or unjustifiable." In surgery, as in medicine, true greatness consists rather in the power of applying a wide and accurate knowledge to the elucidation of the numberless problems suggested by an extended clinical experience, in maintaining that balance of judgment which can withstand the temptations to adventurous brilliancy without becoming stagnated in the slough of servile adherence to tradition. If we look back at the history of surgery it will be found that the men who have left their mark are not the brilliant operators or learned investigators, but rather men who continually devoted great ability to the work of their profession, to the solution of the questions which daily present themselves for interpretation. They were men who spared no pains in their work, who shirked no difficulties, but they were

men who ever placed the patient in the first place, and looked upon operative brilliancy as a means to an end.—University Medical Magazine.

RUPTURED GASTRIC ULCER SUCCESSFULLY TREATED BY ABDOMINAL SECTION AND SUTURE.

T. H. Morse (Brit. Med. Journ.) The patient, a young lady aged 20, having had symptoms of gastric ulcer, was suddenly seized with pain, followed by faintness and vomiting. The pain, which was of a burning character, commenced over the region of the stomach, and gradually extended all over the abdomen. Abdominal section was performed nearly five hours after the commencement of symptoms; the contents of the stomach were found in the peritoneal cavity. The stomach was withdrawn, and a perforation found on the anterior surface close to the cardiac orifice. The organ was washed out and the perforation closed with Lembert's sutures; the stomach was returned, the peritoneal cavity washed out, and the wound united. No food was given by the mouth for 60 hours, and at the end of three weeks the patient was quite well. The author had not up to the present time seen a record of any other successful case of this kind in this country, though cases had been reported by Drs. Penrose and Dickinson, also by Mr. Gilord and Mrs. Barling, and by Mr. Warrington Haward, references to which were to be found in the Brit. Med. Journ. of the past year.

Mr. Barwell, in the discussion, said that he had been able to find 25 cases on record of closing a rupture in the stomach wall, and there were at least four others. In one of the 25 cases there was a localized abscess close to the small curvature; this abscess was opened, and that was all that was found to be necessary. He then described Kriege's case. Mr. Barwell suggested the following points, which he thought might point the way to success: First, to operate as soon as possible; secondly, that the incision through

the abdominal wall should be to the left of the middle line; thirdly, to search very thoroughly the front wall of the stomach, as in these cases the opening was for various reasons liable to be hidden by lymph, puckering, etc. He suggested that it might be advisable to introduce into the patient's stomach some colored fluid, such as coffee, for this purpose. He could not agree with Mr. Haward that it was necessary to cut away the margin of the ulcer before suturing the stomach. He thought that Mr. Morse had done very wisely in washing out the stomach, and also in eschewing antiseptics in washing out the peritoneum. Mr. Barwell had seen very good results in washing out the peritoneum with warm distilled water in restoring patients from relapse during abdominal operations.

OPERATIVE REMOVAL OF A TUMOR FROM THE NECK OF A NEW-BORN INFANT.

An infant was brought in with severe dyspnea and cyanosis, the cause of which proved to be a large tumor which was situated on the anterior surface of the neck and which as a vast struma interfered with the air passages. The swelling, which was larger than a hen's egg, appeared hard and firm, rough and nodular, and extended from the chin even under the sternum. It was covered with integument (which was movable) fascia, and the superficial muscles of the neck, and embraced the hyoid, larynx and trachea on the anterior surface. On account of the poor prognosis that would attend a simple tracheotomy in so young a child, and because this operation could hardly be accomplished alone from the extent of the tumor, the whole mass was removed without anesthesia, yet not without considerable hemorrhage. A part of the thyroid was left. After the operation the respiration was at once free and the child cried aloud. The course of the wound was favorable. On section the tumor was shown to be solid with many small pin-head to pea-sized cysts. Under the microscope there were found in the midst

of a connective tissue, vascular and rich in nuclei, solid and hollow epithelial plugs and cysts lined with cylindrical epithelium. The presence of undoubted cartilage was striking. The tumor was regarded as congenital struma. Virchow in the discussion pronounced the tumor a teratoma.—*Centralblatt für Gynäkologie*.

LIGATURE OF THE EXTERNAL ILIAC ARTERY.

At the Société de Chirurgie, of Paris, held in December, 1894, M. Chauvel reported the case of an Arab child who had been wounded in the thigh by a pocket knife. It immediately resulted in a spurting hemorrhage, which spontaneously ceased, but recommenced after six hours. On admission to the hospital a compress bandage was applied and left in place for eight hours. When it was removed the clot was thrown out and the hemorrhage was again active. M. Nicot decided to ligate the external iliac, which was done without chloroform, by cocaineization. Cure by second intention resulted. On the 13th day there was secondary hemorrhage which was arrested by direct compression. Some days afterward there was gangrene of the foot which was self-limited and the child recovered. The reporter was of opinion that it would have been preferable to seek for the divided ends of the vessel and tie them in the original wound.—*Revue de Chirurgie*, Jan. 10, 1895.

CHANCRE.

In forms characterized by a macule, papule, dry scaling papule, abrasion, or excoriation, have the patient dress the lesion twice daily, first cleansing with a 1 to 500 solution of bichloride of mercury, and then apply the following ointment: Hydrarg. oleat., 5 per cent.; ung. hydrarg. cimer., aa 1-2 drachm (2 grammes). A very thin layer of absorbent cotton is placed between the chancre and opposing surface whether this be tissue or clothing. If the lesion be in the mouth, apply the bichloride solution thoroughly, and nothing further; if in the vagina or rectum, apply ointment also. Should

the chancre show a destructive tendency, cauterize freely in one sitting either with nitric acid or 25 per cent. pyrozone solution. Use dressing as above. (Ohmann-Dumesnil, Medical Mirror, September, 1894.)

COCAINE IN DRAWING TEETH.

Dr. W. Lepkowski (Central Blatt Fuer Chirurgie, No. 51, 1894) uses cocaine very extensively in dental work and is well satisfied with the results. A three per cent. watery solution is injected around the tooth, into the gum, until it turns entirely white, when further injection is quite painless. One should begin on the lingual side and as a rule 0.007-0.015 will suffice for complete anesthesia. In extracting the last upper molar he warns against injecting into the fold of mucous membrane back of it, as it is quite prone to be followed by symptoms of poisoning. As the first injection is a painful one he also applies to the gum a 10 per cent. solution and injects a 1 per cent. solution around the tooth. Injections into abscesses produce violent pain, though one may safely inject into inflamed and infiltrated gums. He does not wait a few minutes after injecting but extracts at once. He has found by experiment that 1 per cent. and 3 per cent. solutions of cocaine arrest the development of cultures of pyogenic micro-organisms.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

In a case of tenia solium rebellious to all treatment by the usual vermifuges Bartholow was successful with papaine, given in doses of 6 decigrammes three times a day after meals. An excellent result was obtained, a tenia measuring about 7 yards in length was expelled. It is probable that papaine is toxic to the worm, causing it to let go of the mucous membrane, and is expelled by the intestinal contractions.—L'Union Med., du Canada.

INFLUENCE OF IODINE ON THE TEMPERATURE OF CONSUMPTIVES.—CERVELLO.

There is a difference of opinion among authors as to the value of iodine in tuberculosis, some considering that it weakens the system by inducing digestive disorder, while others consider that its action is beneficial. The period of the disease, variety and dose all require to be taken into account. Cervello, leaving this question of value, occupied himself by determining its action on the temperature. He used the drug either endermically or hypodermically. Applications of the tincture were made at different parts of the surface, preferably of the thorax and abdomen. The results were that defervescence was produced in all cases. In one case of continued hyperexia the temperature became normal after a few applications. In a little girl who had been feverish for a month one application brought the temperature to normal.

For use hypodermically the following solution of Durant was employed:

Iodine. 1 grm.

Iod. potass. 10 grm.

Dist. water. 100 grm.

of which 1 c gm. was injected every hour.

The antithermic action was shown just as well by this plan as by the first. The effects generally were seen a few days after the first injection, sometimes after 24 hours. It is likely that the effect is due to the antifermentative action of iodine.

The external applications are to be preferred, because the injections may produce abscesses.—Rev. de Therap. M. C.

Dr. Farran reports to the Society (Obstetrical, of London,) two observations, in which rigidity of the uterine neck yielded to the application of a solution of cocaine of 1-10. The applications were made with the object of anesthetizing the region for the purpose of making incisions. When he was ready to proceed he found the neck already widely dilated.—Rev. de Therap. Med-Chir.

A VIRULENT FORM OF TYPHOID FEVER COMMUNICATED BY THE BREATH.

Watson Williams reports a series of observations tending to prove that expectoration of one patient has communicated the disease to others. The first patient, attacked with severe typhoid fever, with bronchitis and abundant expectoration, which he ejected anywhere around him, while delirious, died in a month with laryngeal symptoms. The autopsy showed the appearances of typhoid fever.

Two brothers of the patient were attacked also, but recovered. The nurse who looked after them contracted the fever and died in three weeks. A patient from a neighboring ward was transferred to the room in which the typhoid cases had been. He contracted the disease and died with laryngeal symptoms. This seems to show that the germ can be transmitted by the products of the air passages, as well as by the products of the bowels.—*Jour. des Cour. Med.*

VESICLE IRRITABILITY.

Irritability of the bladder, when due to excess of phosphates in the urine, is rapidly eased and the constant desire to urinate controlled by the following mixture:

Benzoic acid. 2 dr.
 Borax. 1 1-2 dr.
 Water. 7 oz.
 Doses not stated.—*Prog. Med.*

ASSAFOETIDA IN OBSTETRICS.

This is very useful in threatened abortion, harmless to the general system. It is useful in the nervous symptoms incident to pregnancy, and is best given in pill form.—*Prog. Med.*

HEREDITARY SYPHILIS IN INFANTS.

It is known that all new-born children lost weight after birth, and that toward the 10th day, sometimes later, they regain their initial weight. Starting from this time they gain 25 to 30 grammes per day.

If the child is tainted with syphilis

he loses during the first four days after birth 100 grammes each day (sometimes the loss does not begin for about 10 days). In these conditions weight instead of increasing remains stationary. Therefore, when in a normally nursing child a rapid emaciation occurs (without diseased conditions capable of explanation), the inference is that there is syphilitic taint, and mercury should be given by fractions of 1 gramme per day. The solution of VanSwieten, 20 drops per day in milk is also advised, and the doses are to be gradually increased to 60 or 80 drops.—*La France Med.*

SALICYLIC ACID IN PLEURISY.

The treatment of pleurisy by salicylic acid has been advised by Aupécht in daily doses of 5 to 6 grammes for two or three days, and then reduced to 3 or 4 grammes. The treatment should last for 8 to 10 days. If at the end of 8 days the exudation has not been absorbed treatment should be interrupted for two or three days.

It is only a useful treatment when the effusion is recent. Salicylate of soda has also been given for the same purpose, but recently a case of sudden death in a patient with pleurisy, who took in the evening 6 grammes of soda salicylate and in whom the effusion had considerably diminished, the reporter attributed the death to cardiac paralysis.—*Revue Therap.*

Massage has been used with success in the treatment of sciatica.

Digitalis used in large doses in acute pneumonia has been decided to be worthless by Dr. Reiner. The effect on the pulse and temperature is slight, and, in view of the dangerous nature of the remedy, not worth the risk in its use.—*Rev. Therap.*

Alumnol, according to Chotzen, destroys gonococci. It is active in the urethra, uterus and vagina; it puts a stop to the increase of germs

and by its astringent action acts favorably on the inflamed mucous membrane.—*Revue Therap.*

RESORBINE.

Under this name in Germany is designated an emulsion of a fatty body obtained by a special process and containing oil of sweet almonds, wax, a little gelatine and soap, the whole combined with a certain quantity of lanoline. The product resembles butter, and penetrates into the skin with great rapidity. It is useful in certain cutaneous disorders.—*Rev. de Therap.*

TREATMENT OF GONORRHEAL EPIDIDYMITIS.

Roelet sums up in the *Semaine Medicale* the modern treatment of this disease. It requires both internal and external methods. Salicylate soda and tincture of pulsatilla are the best drugs. The former, in quantities of 6 grammes in 24 hours, relieves the pain promptly. Pulsatilla is used in doses of 30 drops, but its action is somewhat uncertain.

Among external applications fomentations, atomizations of coryl, guaiacol, compression by wadding covered by oil silk and an appropriate suspensory bandage are the most useful.—*Rev. Medicale.*

Therapeutics.

IN CHARGE OF

DR. LOUIS LEWIS, Philadelphia.

THE VALUE OF SALOPHEN IN NEURALGIAS OF RHEUMATIC ORIGIN.

"One of the most useful therapeutic acquisitions of the last 20 years," writes Dr. Lavrand (*Jornal des Sciences Medicales de Lille*, Dec. 22, 1894), "is certainly the salicylate of soda. Previously the physician was almost without resources in the treatment of acute and subacute rheumatism. In spite of the considerable advantages of this remedy, however, its use was sometimes at-

tended with serious drawbacks, such as tinnitus, giddiness, delirium, etc. In the absence of a substitute for the salicylate, the physician is often compelled to prescribe it, despite these disagreeable effects. At the present day we are more fortunate, for salophen seems to possess all the advantages of the salicylate without its drawbacks. After numerous trials, this remedy has been accepted as embodying both the properties of phenic and salicylic acids, the former component being in the form of acetylparaamida-phenol. Salol, which is a combination of phenol with salicylic acid, and was brought forward as a substitute for salicylate of soda, has not fulfilled expectations, as it has given rise to numerous cases of toxic effects. On the other hand, the unanimous testimony of those who have employed salophen is that this remedy is as powerful an analgesic and antirheumatic as salicylate of soda, while practically devoid of unpleasant or injurious after effects. Salophen passes unchanged through the stomach and is decomposed in the intestinal canal, and this explains why it is so well tolerated by the digestive organs." Impressed by these considerations Dr. Lavrand has given this remedy an extensive trial in cases of acute and subacute articular rheumatism, and in neuralgias in rheumatic subjects. In many of these cases the salicylates of soda had been previously administered, but had provoked so much gastric disturbance and repugnance that its use had to be relinquished at the request of the patient. Salophen was then resorted to in 0.5 gramme doses, two to four times daily, and proved to be fully as effective as the salicylate, while its tastelessness and freedom from gastric disturbance and nervous disorders rendered it adapted for prolonged administration. The analgesic effect of the drug was sometimes remarkable, the pains being relieved with great rapidity by two or three doses. Lavrand's observations derived especial interest and value from the fact that in most of his cases an opportunity was given him to contrast the effects of salo-

phen with the salicylate of soda, and thereby clearly establish the superiority of the former.

TANNIGEN AS A GENERAL AS- TRINGENT.

In an excellent work entitled "Notes on the Newer Remedies," by David Cerna, M. D., Ph. D., demonstrator of physiology in the medical department of the University of Texas, just issued by W. B. Saunders, Philadelphia, the following occurs with regard to this preparation:

"Tannigen or acetyltannin is a compound of acetyl and tannin. This new remedy appears in the form of a yellowish-gray powder, odorless and tasteless, slightly hygroscopic and melting at 374 degrees F. (190 degrees C.). It is freely soluble in cold alcohol and dilute solutions of borate carbonate and phosphate of sodium. Tannigen has been employed with good results in the treatment of chronic diarrheas, especially those occurring in phthisical individuals. This remedy is administered internally in doses from 3 to 7 1-2 grains (0.20 to 0.50 grammes), and even as high as 60 grains (4 grammes) a day. Locally applied in a 3 per cent. solution in 5 per cent. of sodium phosphate solution, tannigen has rendered good service in the treatment of chronic pharyngitis."

ON THE ACTION OF LEVULOSE DIABETIN AND OF INULIN - IN DIABETES MELLI- TUS.

In three cases of diabetes mellitus Dr. Haycraft administered levulose as carbohydrate food. The patients were put upon a fixed diet in which carbohydrates were, as far as possible, eliminated from the nourishment; the sugar contents of the urine were estimated exactly. For alternating periods of three days 50 grammes levulose were given daily in six portions. The quantity of sugar eliminated was determined by means of Fehling's solution and the polariscope.

In the first of three cases—a case

of acute diabetes—the average increase of sugar excreted in the urine during administration of levulose was 106 grammes in a period of three days. Within this period the patient had taken 165 grammes levulose in three portions; of this, 9 grammes or 5 per cent. was excreted as levulose; 97 grammes of 59 per cent. eliminated as glucose, and 59 grammes or 37 per cent. was stored up in the organism. Analogous results were obtained in a second case of acute diabetes. In a third case, one of chronic diabetes in an elderly person, all the levulose administered was economized in the system, and no increase in the amount of glucose was observed.

Experiments on rabbits proved that glycogen may be formed from levulose. No food was given to a rabbit for a period of six days, as one may assume that after this interval all the glycogen in the liver had disappeared. Thereupon a solution containing 10 grammes levulose was injected into the stomach of the animal; four hours later the animal was killed and a large quantity of glycogen found in the liver. This experiment was repeated on four other rabbits from which food was withdrawn for a period of seven days. Two of them were at once killed, whilst to each of the other animals 15 grammes levulose were administered, and four hours after both were killed. In the liver of the first two rabbits no glycogen was found, whilst in the liver of the other two animals glycogen was present.

From the above clinical observations and biological experiments the author came to the following conclusions:

1. A patient suffering from chronic diabetes is capable of assimilating daily 50 grammes or more of levulose.

2. In many acute cases of diabetes a part of the levulose contained in the food is excreted as such, a part enters into the economy and a part is converted into glucose.

3. In rabbits, glycogen is formed from levulose administered and accumulated in the liver.

Dr. Hall White has carefully ex-

amined the action of levulose and of inulin in the cases of eight diabetic patients. Levulose was given in the form of Schering's preparation, and inulin as prepared from dahlia tubers. The author arrived at the following conclusions:

1. If large quantities of levulose are administered, part of the same appears in the urine.

2. In none of the cases did levulose exert any deleterious action such as is frequently observed with ordinary carbohydrates, namely, the excretion of sugar in excess of the amount taken.

3. If levulose is administered, the excretion of sugar is generally slightly increased, but in some cases even a decrease may occur.

4. In most cases much less sugar appears in the urine after administration of levulose than would have been the case if the original sugar excretion had remained stationary, and all the levulose had presented itself in the urine. This result appears to indicate that a part of the levulose is in these cases retained and assimilated in the organism.

5. There is ground for the assumption that the larger the consumption of levulose the greater the decrease of sugar in the urine.

6. Whilst it is evident from some of these cases that a greater economy is effected with levulose than with dextrose, in none of them is there evidence to the contrary, namely, that dextrose is better assimilated in the organism than levulose.

7. No retrogression was observed in any of the patients to whom levulose was administered, but on the contrary the general condition improved, and body weight increased.

8. It is probable that a moderate quantity of dahlia tubers partaken of as vegetables by diabetic patients would do no harm.

9. The influence of levulose upon the excretion of urea is inconsiderable.

10. The quantity of urine after administration of levulose varies with the quantity of sugar excreted.—The Therapist.

PHENOCOLL IN THE TREATMENT OF MALARIA.

BY DR. MICHELE TITONE.

(Palermo University.)

In a resume of an article in the *Riforma Medica*, on the beneficial effects of phenocoll in the treatment of malaria, the author summarizes his experiences as follows:

"The remedial value of phenocoll hydrochloride in malaria has been clearly proved. The investigations published by Albertoni, Ancona, Crescianno, Vincenzi, Cervello, Bonetti, Micheli and others have established it beyond doubt. I myself, after having read the statements of Professor Albertoni, tried phenocoll in malaria, for which I had good opportunities, as the marsh fever was very general in this neighborhood. I can only corroborate the statement that phenocoll hydrochloride is an excellent succedaneum for quinine. I have observed cases in which quinine was prescribed in large doses, and under strict maintenance of recognized rules, without any improvement whatever being effected, whilst, on the other hand, even a small dose of phenocoll sufficed to overcome the fever.

"I had originally intended to add my modest tribute to the excellent action of the new remedy, but I abstained from going into details, as my practical experience and conclusions fully coincide with those of my colleagues, and would therefore be superfluous.

"At the same time I would especially make known that my observations on the administration of phenocoll to patients in a pregnant condition have been of a most satisfactory character, and the treatment has furnished most favorable results."

THE EFFECT OF ETHER ON THE KIDNEY.

In the September number of the *University Medical Magazine* there

is an article by Dr. George B. Wood entitled "The Elimination of Ether and Its Relation to the Kidney," a thesis for which the Isaac Ott prize of the University of Pennsylvania for 1894 was awarded. The author gives accounts of 17 experiments on animals, undertaken for the purpose of ascertaining the precise action of ether when administered as an anesthetic, on the kidney, whether healthy or diseased. He thus summarizes the chief conclusions that he has arrived at: 1. It has been proved that ether exists as such in the free state in the blood, but although it must come in close relation with the kidney it is not excreted by that organ to any appreciable extent. Nevertheless it has been demonstrated that in ether anesthesia the kidney becomes congested, and on microscopical examination the cells show cloudy swelling. The cells of the convoluted tubules are affected primarily, and the tufts and collecting tubules do not show any change unless the anesthesia has been prolonged. It is probable that repeated administrations of ether, if kept up long enough, would cause desquamation of the epithelial cells. 2. The local effect of ether upon the kidneys already diseased must be very deleterious, for an unhealthy organ will not stand wear and tear like a normal one. In cases where uremic poisoning was beginning to manifest itself it was shown that there was a liability to sudden death during ether anesthesia, due to the action of the ether on the already depressed centres of respiration.

The author gives it as his belief that in cases of nephritis surgeons should give ether only with the greatest care, and watch continually for any signs of failure of respiration. An important point, he says, is that the ether should be given very gradually, and when during the anesthesia it is necessary to use more ether the inhaler should not be put directly on the face at once, but gradually brought close to it while the anesthetizer watches the patient's breathing carefully.—*Northwestern Lancet.*

Miscellany.

HYDROTHERAPY IN FRACTURES.

More than 20 years ago Dr. J. H. Kellogg (Mod. Med.) treated fractured limbs for a short time with applications of hot water before putting the parts in permanent dressing. Thus he avoided much of the pain, swelling and discomfort resultant the first few days after application of dressing, and secured speedy, complete union with less disability of overlying muscles and contiguous joints. He found hot fomentation or soaking the affected parts in hot water for an hour or two almost invariably relieves pain from circulation in contused vessels, prevents swelling, overcomes muscular spasm and rigidity and promotes recovery. If there be much displacement of the fragments it is important that the parts be drawn into position; they can be retained by temporary pasteboard splints and light bandages during application until permanent dressing is applied. Dr. T. S. K. Morton, of Philadelphia, recently reported a case in which an ununited fracture of the leg united four months after the accident, from applications of hot water and massage.—*Medical Standard.*

EXPRESSION OF PAIN AS EVIDENCE.

It is well settled, declares the Appellate Court of Indiana, in the case of *Anderson vs. Citizens' Street Railway Company*, decided November 27, 1894, that whenever the bodily or mental feelings of a person are material to be proven, the usual expression of such feelings made at the time are original evidence. The statements or representations of a sick person of the nature and effect of a malady or injury under which he is laboring, or expressions of existing pain, it therefore holds, are admissible as original evidence; and this is so whether they be made to a medical attendant or other person.—*Medical Review.*

SILK SUTURE SILK IN ANTISEPTIC SOLUTIONS.

Dr. Van Ketel (*Pharmaceutische Zeitung*, No. 68, 1894) has attempted to discover why the solutions of the bichloride in which suture silk is kept in so liable to develop flakes due to various micro-organisms. He has found, from experiment, that the silk extracts the antiseptic from the solution; even in the course of 24 hours it will withdraw the bichloride from a 1-2 per cent. solution so that algae will grow luxuriantly in it. He thinks it probable that the albuminoids and similar substances in the silk enter into combinations with the sublimate. Therefore, he would recommend keeping the silk in absolute alcohol and only placing it into a 1-2 per cent. sublimate or a 1 per cent. sodium chloride solution immediately before using.

THUMB BRINGS \$2000.

The case of *Kitchell vs. Brooklyn Heights Railroad Company* was instituted to recover damages for the loss of services caused by the amputation of the thumb of a 7-year-old daughter of the plaintiff. Liability, therefore, was charged to the company sued on account of its negligence causing the injury which resulted so disastrously. A verdict for \$2000 was returned, and the general term of the city Court of Brooklyn holds, November 27, 1894, that, considering the importance of the thumb as a member of the hand, and how necessary its presence is to make the hand available for use in nearly all ordinary vocations, this is not excessive, a bill of \$100 for medical treatment having also been incurred.—*Jour. Amer. Med. Ass'n.*

TWO PECULIAR CASES OF HERNIA.

In the first case an Italian laborer was struck a severe blow which caused a painful swelling in the groin. Examination showed an undescended testicle which was removed, the spermatic cord being stitch-

ed into the internal abdominal ring to occlude it. In the second case a woman had been subject for some time to an inguinal hernia and attempting to use a new truss was caused so much pain by it that the author was sent for, and found a prolapsed ovary, which he removed using the ovarian ligament to close the inguinal canal as before, and in this way, he thinks, obtaining a permanent cure.—*M. Daniels, Buffalo Med. Jour.*

HE MET HIS MATCH.

The scene was the private laboratory of the greatest chemical analyst known to science, J. Bigleg Bighead, M. D., F. R. S., P. D. Q., etc. There was a timid rap on the door, and a dark-featured man entered, saluting with obsequious grace, and handing the great expert a card:

.....
: BAGGEM & FLEECEM, :
: :
: PRIVATE DETECTIVES. :
:.....

The celebrated toxicologist glanced at the card and motioned the visitor to a seat. "Happy to make your acquaintance, sir. What can I do for you?"

The swarthy-browed visitor glanced around to make sure that they were alone, then drew forth from the folds of his cloak a small bottle containing some mysterious fluid.

"Sir," he began in guttural undertones, "this bottle contains part of the contents of a man's stomach. The deceased died two days ago under the most suspicious circumstances, after having dined with a very beautiful woman. I want expert sworn testimony—an iron-clad, all-wool, yard-wide, no-rebate, expert analysis. What's your price, sir?"

The great man held the bottle up to the light, then pulled a string disclosing a scale of prices on the wall, which the visitor read, as follows: To find poison and swear to it. \$1000 Not to find poison and swear to

it. 2000

To find poison and swear I didn't.	4000
Not to find poison and swear I did.	5000
To "ball up" the jury with learned technicalities, so that it won't know whether I did or didn't.	1500
To boomerang 400 yards of Latin at the Judge.	1000
To bring ten other great men to swear for our side, each. .	1000
To cite eminent authorities which ever way you wish, per cite.	250
To throw up enough scientific dust to befog and muddle the Judge, jury, prosecuting attorney and myself, per shovelful.	250
Consulta'n, beginning with this one, per minute.	200
"Now, sir," continued the great toxicological expert, "on which side of the fence are you? Are you employed in the interest of the poisoner or the poisonee?"	

But the detective had finished the last line of the scale of prices, and his hair stood on end. Slowly he arose, looked at his watch, saw that he had been there 30 seconds, drew forth a roll and counted out \$100, pressing it into the hand of the great expert. Then, with a look of envy and admiration, he said:

"My dear brother bunco-juggler, I thought we were pretty fly at this game; but say, we aren't in it with you. See? I'll just run up and bring my client down so that you can first analyze the contents of his pocket-book, and if you find anything in it, between us he will wish he had been born dead. See?"

"Very well, sir. Good morning."

But the wily detective had fled just in time to save another hundred.

DIPHThERIA ANTITOXIN.

There are now in the market various antitoxins of different strength, some of which have given rise to complaints of inefficacy and secondary effects, the latter being due to the presence of toxic substances not antitoxin. Schering's Antitoxin (Dr. Aronson's), with which the best re-

sults were obtained and on which the first clinical reports have been based, is a highly concentrated antitoxin from which the inert and noxious albuminoid constituents of the serum are eliminated.

DEATH RATE OF THE RACES.

In the reports of the vital statistics of the eleventh United States census the corresponding data from Boston, Philadelphia, Baltimore, Washington and from the New England States as a whole, taken with those from New York State and New York city and with those derived from a special investigation of over 10,000 Jewish families, including over 50,000 persons, leads to the following conclusions as being probable for the United States:—

1. The colored race is shorter lived than the white, and has a very high infantile death rate; it is specially liable to tuberculosis and pneumonia and less liable than the white race to malaria, yellow fever and cancer.
2. The Irish race has a rather low death rate among its young children, but a very high one among adults, due to a considerable extent to the effects of tuberculosis, pneumonia and alcoholism.
3. The Germans appear to be particularly liable to disorders of the digestive organs and to cancer.
4. The Hebrews have a low death rate and a more than average longevity; they are less affected than other races by consumption, pneumonia and alcoholism, but are especially liable to diabetes, locomotor ataxia and certain other diseases of the nervous system.—"Medical Record."

THE AMERICAN INSPECTION OF EMIGRANTS IN FRANCE.

The Progres Medical for January 19 says that several newspapers have published a dispatch from Washington, according to which the French and German Governments have protested against the presence, in certain French and German ports, of the American medical inspectors who control the embarking of emigrants for America. The American

Government is said to have replied that the diplomats and consuls were not, from the nature of their functions, competent to exercise the control with which these inspectors were charged—a useful function, says the *Progres Medical*, for it saves the American Government from being obliged to return to France or Germany those emigrants who do not fulfill the requirements for admission into the United States. The matter, moreover, has terminated in the most satisfactory manner, for the American medical officers have obtained from the French Government all the facilities they could desire for the accomplishment of their mission.—N. Y. Med. Journal.

A HERMIT'S SECRET.

An undertaker at Red Key claims he has secured a secret from an old hermit which promises to revolutionize the art of embalming. He learned it of an aged man who lived in the mountains of West Virginia, in a lonely cabin, and residents of the neighborhood believed him insane and that his house was haunted. A visit to the hermit's cabin was paid by the undertaker and a friend. The floors of the two lower rooms of the cabin were carpeted with the finest rugs made from the skins of animals and preserved by the hermit. The rugs consisted of the skins of coons, cats, snakes, frogs, minks, etc. The skins were perfectly preserved, and were as natural as if just taken from the animal. Up stairs were three bodies which the hermit said he had obtained years ago. They looked as if death had come but yesterday. The hermit also had bodies of different animals all looking as natural as life. The first experiment with the fluid will be made in a medical college in Baltimore, Md.—*Mullica Hill Observer*.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The meeting of this association will be held in Baltimore, Md., May 7 to 10. A large attendance is expected. The secretary reports that the railroad companies will give a

fare and a third to members and families attending the meeting by the usual process of certification.

COLD IN THE TREATMENT OF PNEUMONIA.

To the Members of the Medical Profession:

My last paper on Ice-Cold Applications in Acute Pneumonia gives a record of 74 cases so treated, and only two deaths. Being desirous of making a full collective report on this subject I take the liberty of asking those who have tested this measure to kindly give me the result of their experience with it. Full credit will be given to each correspondent in the report which I hope to publish.

THOMAS J. MAYS, M. D.
1829 Spruce street, Philadelphia.

NEW YORK STATE MEDICAL ASSOCIATION—FIFTH DISTRICT BRANCH.

The Eleventh Annual Meeting of the Fifth District Branch of the New York State Medical Association will be held in Brooklyn on Tuesday, May 28, 1895. All Fellows desiring to read papers will please notify the secretary.

AUSTIN FLINT,
President.

E. H. SQUIBB, Secretary.
P. O. Box 760, Brooklyn.

THE MEETING OF THE AMERICAN MEDICAL PUBLISHERS' ASSOCIATION.

This association will hold its annual meeting Monday, May 6, in Baltimore. A large and profitable meeting is desired.

NAVY CHANGES.

Changes in the Medical Corps of the U. S. Navy for the week ending March 23, 1895: Medical Director Michael Bradley ordered before Retiring Board March 20, '95; P. A. Surgeon F. A. Hesler ordered to the U. S. S. Philadelphia; P. A. Surgeon R. P. Crandall detached from the U. S. S. Philadelphia, ordered home and granted three months' leave of absence.

The people of tropical countries almost invariably use some form of capsicum with maize as a stimulant to the stomach, maize being more difficult of digestion than some other grains.

The Japanese propose to erect a great monument, built of iron, and similar to the Eiffel tower, in commemoration of their victories.

As a result of the cultivation of the Roman Campagna malaria in that region has greatly decreased.

A Russian physician asserts that new bread is far more beneficial to the consumer than that which has been cut and exposed to the air, and that has had time to gather the numerous germs which find in the material a nutrient medium.

The doctor had presented his bill, and it was large. "Humph!" said Skinflint. "This is a pretty big charge." "No doubt," retorted the doctor, "considering the value of the life I saved; but it goes."—Harper's Bazar.

STATE MEDICAL SOCIETIES

With the Secretaries, and time and place of meeting, 1895.

Secretaries. Time and place of meeting.

Alabama—J. R. Jordan, Montgomery, Mobile, April 16.

Arkansas—L. P. Gibson, Little Rock, Little Rock, May 1.

California—W. W. Kerr, San Francisco, San Francisco, April 16.

Colorado—E. R. Axtell, Denver, Denver, June 18.

Connecticut—N. E. Wordin, Bridgeport, Hartford, May 22.

Delaware—W. C. Pierce, Wilmington, Wilmington, June 11.

Florida—J. D. Fernandez, Jacksonville, Gainesville, April 16.

Georgia—D. H. Howell, Atlanta, Savannah, April 17.

Illinois—John B. Hamilton, Chicago, Springfield, May 14.

Indiana—F. C. Woodburn, Indianapolis, Indianapolis, May 30.

Iowa—J. W. Cokenower, Des Moines, Creston, April 17.

Kansas—G. C. Purdue, Wichita, Topeka, May —.

Kentucky—Steele Bailey, Stanford, Harrodsburg, June 5.

Louisiana—P. B. McCutcheon, New Orleans, New Orleans.

Maine—C. D. Smith, Portland, Portland, June 5.

Maryland—Joseph T. Smith, Baltimore, Baltimore, April.

Massachusetts—F. W. Goss, Boston, Boston, June 11.

Michigan—C. W. Hitchcock, Detroit, Bay City, June.

Minnesota—C. B. Witherle, St. Paul, Duluth, June 19.

Mississippi—H. H. Haralson, Forest, Jackson, April 12.

Missouri—Frank R. Fry, St. Louis, Hannibal, May 21.

Montana—W. M. Bullard, Helena, Anaconda, April 16.

Nebraska—George Wilkinson, Omaha, Grand Island, May.

New Hampshire—G. P. Conn, Concord, Concord, May 30.

New Jersey—William Pierson, Orange, Cape May, June 25.

New York—E. D. Ferguson, Troy, New York, October 16.

North Carolina—R. D. Jewett, Wilmington, Goldsboro, May 14.

N. Dakota—G. A. Carpenter, Fargo, Fargo, May 15.

Ohio—Thomas Hubbard, Toledo, Columbus, May 15.

Oregon—F. Cauthorn, Portland, Portland, May 31.

Pennsylvania—William B. Atkinson, Philadelphia, Chambersburg, May 21.

Rhode Island—W. R. White, Providence, Providence, June 6.

South Carolina—W. Peyre Porcher, Charleston, Columbia, April 12.

S. Dakota—W. J. Maytum, Alexandria, Alexandria.

Tennessee—S. S. Crockett, Nashville, Nashville, April 9.

Texas—H. A. West, Galveston, Dallas, April 23.

Vermont—D. C. Hawley, Burlington, Burlington, October 10.

Virginia—L. B. Edwards, Richmond, Richmond, May.

Washington—J. R. Thompson, Spokane, Seattle, May.

W. Virginia—G. A. Aschman, Wheeling, Elkins, July.

Wisconsin—C. S. Sheldon, Madison, West Superior, June 5.

Nevada—W. A. Phillips, Reno, Reno, January 14.

Idaho—C. L. Sweet, Boise City, Boise City, September 9.

TERRITORIES.

Arizona—L. D. Dameron, Phoenix, Phoenix, July 12.

Indian—J. L. Baguly, Vinita, Vinita, July 12.

New Mexico—F. H. Atkins, East Las Vegas, East Las Vegas, July 12.

Oklahoma—C. D. Arnold, El Reno, El Reno, July 12.

The Times and Register.

VOL. XXIX. No. 15. PHILADELPHIA, APRIL 13, 1895.

WHOLE No. 866.



Original.

HEREDITY: ITS RELATION TO INSANITY AND IDIOCY.

By John B. Chapin, M. D.,
Pennsylvania Hospital for the In-
sane.

(Read January 23, 1895.)

In response to an invitation from your President and Secretary to participate in a discussion of the subject of "Heredity in its Relation to Insanity and Idiocy," a promise was made to divide with others the time that might be assigned to its consideration.

There has always existed a deep-seated conviction that certain diseases are transmissible by inheritance from parent to offspring. This conviction is strongly fortified by an array of statistics which, if accepted without reservation, might in themselves establish the fact. It is quite common to place insanity and idiocy in this category. So prevalent is the belief that insanity is directly transmitted by inheritance that in medico-legal proceedings it is usual to consider it a strong defense to show that insanity existed in the family of a person charged with crime. So well-grounded is the opinion that insanity may be due to a direct inheritance that its existence is the shadow that darkens households, affects plans of domestic arrangements, blights the happiness, and shapes the destinies of a large number of persons. Doubtless the mystery that surrounds the complex operations of the mind—the reported results of observations by physicians—the absolute ignorance of the laws of heredity—beyond the ken of human comprehension—have together conduced to

the acceptance of speculations as actual results of well-established facts. Doubtless religious views, coincidences of events, overworked facts and ignorance have exercised an influence in the formation of opinions of this subject and their unquestioned acceptance.

That every species produces its kind is a universally recognized law. That there are physical and psychological characteristics which belong to the individuals making up the many nationalities which are transmitted and preserved from generation to generation; that there are so-called temperaments which have a certain uniformity of physical and psychological development so that they may be recognized and described, is a matter of common observation. Darwin has also presented the theory "that each of the atoms or units constituting an organism reproduces itself."

Heredity manifests itself in family likeness, the hair, gait, height, form, temperament and physical development. The "atoms or units" proceed in accordance with some uniform law of development, so that, however the stock may be crossed, the rule is that man transmits his exact physical counterpart, subject to modification due to environment, climatic conditions, etc. That the vigor of the stock does not abate is witnessed in the fecundity of the human race.

Whether a similar unvarying law governs the transmissibility of psychological qualities may be a question or in doubt. The same consensus of opinion, however, is disposed to conclude that mental traits are transmitted from parents to children in the same degree that physical qualities are inherited. This is partly true only, but the exceptions are so numerous that it may be considered

a chance that the children will possess the psychical qualities of the parents. It has been demonstrated by histories of families in England that strong qualities of mind have been transmitted through generations. On the other hand, this Society may be familiar with the history of a family in New York State comprising 1200 persons of several generations, traced by Mr. Dugdale, who as paupers, lunatics, idiots, criminals, murderers and prostitutes were estimated to have cost the county of Ulster the enormous sum of \$1,300,000. In making inquiry of the ancestry of a certain family in Yates County, New York, it was ascertained definitely that 22 insane persons, criminals, paupers, or idiots, could be traced in two generations to an abandoned woman. The influence of marriages of consanguinity deserves a notice in this connection. Dr. S. M. Bemiss collected some statistics which show the nature of the deterioration that may come from this source. Of ten instances of incestuous commerce, 31 children were born; 29 were defective, viz., 19 idiots, the balance epileptic or deformed. Of 823 marriages of cousins, 3942 children were born, of whom 1105 were defective, 145 deaf and dumb, 85 blind, 308 idiotic, 60 epileptic, and only 38 insane. The results of consanguineous marriages furnish a heredity of physical imperfections rather than of psychical disease. Notwithstanding these results, and the necessarily crude notions that commonly prevail, as well as the probabilities they suggest, it must be stated there is absolutely no unvarying law of transmission established by these reported facts, because of well-known exceptions.

The average normal psychical development is not as often due to transmission or inheritance as to influences of environment, education, the degree of mental receptivity, together with the evolution that goes on from age to age. The quality called genius and knowledge does not seem to be transmitted by inheritance, but a receptive faculty, a capacity to acquire knowledge and

evolve ideas, may be a heredity. The term heredity is well-defined as "the principle or fact of the transmission of psychical or mental qualities or tendencies from ancestors." (Gould's Medical Dictionary.) The instance of the transmission of "qualities and tendencies" that have been cited, and those results which sometimes appear after consanguineous marriages are marked examples of both physical and psychical deteriorations, mental and moral degeneration, of mental and bodily failure—increasing in intensity with successive generations—and of those defects that follow such marriages, according to the principle of reversion or degeneration, in a backward direction, even to the extinction of the line of succession. Dr. Seguin observed: "I have not, to my knowledge, ever had to attend an idiotic son of an idiot, or even the son of a man of weak intellect."

A hereditary disease is one that may be transmitted directly from parent to child. Admitting that it is established that certain physical diseases are inherited, can it be shown that insanity should be classed in this category? If it is not an inheritance, may it not in certain cases be ascribed more properly to the results of heredity? And within what limitations? Individual opinions, formed from a knowledge confined to a limited number of cases, lead some to a conclusion without further reflection. Psychological theorizing leads others to collect data to support their views, and a personal element comes to enter in to throw doubt about the value of any statistics. Hospitals for the insane have contributed their quota, which their medical officers have reported. Thus, Esquirol reported .33 per cent. of his cases were hereditary; Brigham, .26 per cent.; Thurman, .32 per cent.; Aubanel, .4 per cent.; Burrows, .85 per cent.; Hood, .9 per cent.; Moreau, .90 per cent. These statistics were all compiled prior to 1860, and cover a period of 50 years. What rule was applied in their preparation does not appear. The wide range of results at once suggests a great lack of uniformity of material, wide differences

in opinion about what constitutes inherited insanity, and a wide latitude in speculation. Since 1860, the percentum of reported cases of hereditary insanity has decidedly fallen off, although insanity has greatly increased. In some reports of hospitals neither the terms "hereditary insanity" nor "heredity" appear in the list of assigned "causes." In other hospitals the number of cases assigned to heredity has been steadily declining. At the Pennsylvania Hospital for the Insane, of 10,562 cases, heredity was assigned as a cause of insanity in eight cases in every thousand. At the Utica (N. Y.) State Hospital, where statistics have been prepared with a considerable degree of uniformity, the annual percentage varies from four to six. While in some of the American hospitals it is somewhat larger than that just named, generally the reported percentage in European hospitals is very much greater than in this country. Possibly this is owing to different social conditions that prevail, in-breeding, debauchery of parents, greater mental and physical deterioration, the lines on which observers have made up their statistics, as well as the tendency to accept and follow views of recognized authorities. Whatever may be the explanation of the differences of reported results, it is apparent that in recent years the tendency is to attach less importance to the assumption that insanity is directly transmissible by inheritance. By many it is wholly ignored as a direct factor in the production of any considerable amount of insanity; at least inheritance is not named as an assigned cause. If the statistics presented had been prepared by observers holding the same theories, and from exactly the same data, there could be but one conclusion—that the inheritance of insanity (if there be such a thing) is rapidly diminishing.

Referring to personal observations, an examination of 347 patients admitted during two years in the Pennsylvania Hospital showed that the probable and direct causes of insanity in 188 cases was neurasthenia, or nervous exhaustion from over-

work, strain and worry; some form of general ill-health; the puerperal state; septic conditions, etc., and the element of inheritance did not appear or was not ascertained. The remainder were cases of paresis and other forms due to brain degenerations, senile failure, or organic disease, some with a history of marked heredity. Twenty-seven, or 14 per cent., only had a family history sufficiently marked to warrant the assumption that heredity was the probable cause of insanity—that is to say, there had been insanity in parents or along a family line. Exceptionally marked instances of insanity in families have come under my notice, of which two may be briefly presented: Three sisters were brought to the Pennsylvania Hospital on the same day. A brother, said to have been demented, had died about two weeks previously, as was inferred, from gradual inanition and neglect. All had similar delusions of suspicion, of the operation of unseen agencies, which extended to their food, clothing, beds, the air of their rooms. The family history could not be obtained satisfactorily on account of the extreme reticence of all parties. The father had held a high official position under the Government. It was an illustration of those cases of rare occurrence where insanity is communicable in a family, or to persons closely allied in companionship and life, with few relations to the world about them. In this case one sister became insane, and gradually dominated by her superior will-power the other two. From the eccentricities of these people, their isolation and physical appearance, there had evidently been a degeneration, physically and psychically, from the normal family standard.

Recurring to the reference made to 347 cases, mentioned above, it was stated that in 188 the cause in each was directly traceable to some incident in life of the patient or to a physical deterioration or disease. There was sepsis, loss of body weight, deterioration in the quality and constituents of the blood. The nutrition of the brain was impaired, and while many thousands of

persons suffer in some degree from those conditions and recover, insanity, which is so often only a relative condition, was but a further incident in the cases cited. In other words, insanity, or mental disorder, as in these cases, was acquired. More than 140 recovered. Now, will it be said that they had acquired something they could transmit as an inheritance? If so, what was it? Is there anything material, as a bacillus of insanity, that may be received as an inheritance? That a neurotic temperament may be a heredity is believed to be in accord with common observation. Such, however, is the superstitious, vague sentiment existing in relation to insanity that a fear of contamination is the family skeleton. In relation to the class of cases we are now considering, it is a practice to assure relatives, when recovery does take place, that the probability of a recurrence or of the transmission as an inheritance is no greater than in those persons observed by the physician who have a pneumonia, rheumatism, or fever. Suppose the fact were otherwise, and insanity in some degree was directly transmissible by inheritance, surely man would rapidly deteriorate and degenerate until mental soundness would be of rare occurrence, and in the case of idiots and imbeciles the race would end, as they would cease to procreate.

In the procreation of children, if both parents are of exactly equal potency and not related, the expectancy will be that the physical and psychical characteristics of their children will have a close resemblance to the parents. Thirty-one marriages of parties not known to be related or descendants of relations, produced 207 children. None of the children were reported to have been born with any defect. (Dr. Bemiss.) If the potential power of one parent is less than the other, and this may be the general rule, while the expectancy would be that the offspring would partake of the stronger parent, there is no absolute rule, even here, notwithstanding the probabilities. There is a corrective process in constant operation. That nature, con-

stantly, wholly eliminates or limits the influence of the weaker element is certainly true, as many families show members of very opposite degrees of psychical development. The reverse is also true, that deterioration is sometimes not wholly eradicated, but continues in an increasing degree. Two persons of marked neurotic organization may transmit their temperament to offspring in a more intensified form, and in the second or third generation, if there is no cross by which it may be by chance corrected, a neurotic heredity or predisposition is established, from which may come with slight exciting cause some form of mental degeneration, acute insanity, epilepsy, etc. In-breeding of temperaments, then, rather than consanguineous in-breeding, is more conducive to the development of the neuroses, to eccentricity and insanity of the degenerative type.

In the discussion of heredity in its relation to insanity and idiocy an attempt is made to show the diversity of facts and views that exists, that there is often a personal element that enters in the preparation of statistics, that there are limitations of our knowledge; also, to formulate an expression of views or principles which are now presented as conclusions:

1. Physical characteristics, those distinguishing the human species, are transmissible as an inheritance.

2. Knowledge, genius, and culture are not an inheritance, but depend rather on influence, education and environment. Mental receptivity is transmissible. Psychical qualities are not necessarily an inheritance requiring favorable surroundings and circumstances for growth and development.

3. Insanity as a disease is not transmissible by inheritance, but may be acquired or evolved from a neurotic heredity as a basis.

4. A neurotic predisposition is transmissible by inheritance, but there is no absolute rule that it will be transmitted in any given case, or in any case.

5. In-breeding of neurotic temperaments is most conducive to the creation of a neurotic heredity.

6. Idiocy and imbecility may be a defect, having an origin in consanguineous marriages, pre-natal conditions, accidents, arrested development, infantile meningitis, tuberculosis and lack of potency on the part of one of the parents from unexplainable causes.

CLINICAL NOTE ON A CASE OF CALCULUS IMPACTED IN THE URETHRA, WITH GANGRENE AND RUPTURE OF THE URETHRA; EXTENSIVE EXTRAVASATION OF URINE; RETENTION OF URINE FOR NINE DAYS.

Operation by External Urethrotomy, followed by recovery of patient.

By Thomas G. Morton, M. D.

William R., aged 16 years, a well-grown youth, was admitted into the Pennsylvania Hospital, January 2, 1895, with the following history:

Has had irritability of the bladder, and frequent desire to urinate, for a long while, and occasionally noticed a stoppage of the flow while urinating. On December 23, after such an experience, the interruption became permanent. On the 26th, as he was in great distress, he consulted a physician, who found a stone impacted in the penile urethra, about two and a half inches from the meatus. In efforts at extraction, the stone crumbled to pieces, but it was removed, and the patient states that he then passed about a cupful of blood, but did not empty his bladder. A few hours after the operation the penis and scrotum swelled, forming a tumor which became dark-colored in patches. There was absolute retention of urine. His general condition becoming serious, he was brought to the hospital on the ninth day after impaction had occurred.

When admitted into the hospital he was in a condition of shock; he was exceedingly feeble and had septic fever. The penis and scrotum were

assuming the form of a dense globular tumor, the size of a large orange; the skin of the penis and scrotum was gangrenous. Before coming to the hospital a surgeon had scarified the surface, but without affording any relief. The bladder was distended to its full extent, and the tumor was the result of extravasation consequent upon rupture of the urethra due to gangrene.

Operation. An incision was made in the median line, extending from the penis, through the scrotum to the perineum, and a large collection of urine was discovered, which formed the tumor. The incision divided the scrotum in the middle and exposed the urethra, which was gangrenous to the extent of about two inches; the spot where it had ruptured was in front of the scrotum, evidently where the stone had lodged. The perineal urethra was then opened and the bladder evacuated. A drainage-tube was slipped into the bladder from the wound, and a tube was also passed from the meatus. After two weeks both the drainage-tubes were removed. The dead tissues soon separated, leaving a healthy granulating wound. The bladder was evacuated daily with a silver catheter, and the further progress of the case to recovery was uneventful. The patient is now presented, a month after the operation, with the wound in a healing condition, with the large urethral fistula still open.

The repair of that portion of the urethra which was destroyed may necessitate a plastic operation, especially if it should be found that, in the process of cicatrization, contraction and deformity of the organ is likely to occur.

DISCUSSION.

Dr. Morton: This case is presented partly on account of the unusual character of the accident, but more especially in regard to the length of time absolute retention existed without bladder rupture.

In regard to the closure of the fistula it would seem prudent to wait until the repair now progressing shall show what form of operation may be required.

Dr. John H. Packard: The only thing to do is to make a perineal section in the membranous portion of the urethra, and keep the anterior portion completely at rest. When repair has gone as far as it will, then an after-operation can be considered.

Dr. Willard: The case reminds me of one I saw 15 or 20 years ago. The man, after gonorrhea, had a stricture, and he was in the habit of catheterizing himself. One day urination ceased and retention occurred, as he thought, from the stricture. I first saw him on the fourth day of this condition. At this time the scrotum was gangrenous. The whole anterior portion sloughed off and both testicles were bare. Rupture of the urethra had occurred in the prostatic portion, where a stone had lodged, blocking the urethra and causing gangrene. I treated the case by incision in the perineum and scrotum, removing the stones. The wound healed slowly, but without difficulty, and the man lived several years afterward. The incision in that case was two or three inches in length, but did not extend as far forward as in Dr. Morton's case.

Dr. W. W. Keen: The most interesting question here is the restoration of the urethra. Two cases that occurred in my practice some years ago have some bearing upon this. One was a patient in the country, who received an injury of his perineum as the result of jumping and coming down upon the sharp corner of a board, which penetrated the perineum to the depth of two or three inches to the prostate and completely lacerated the urethra. He was brought in from the country, and I saw him on the third day. No urine had been passed. I attempted to make a perineal section, but the tissues were sloughing and there was profuse bleeding, so that the tissues could not be recognized. I, therefore, gave up the perineal incision, put him in the Trendelenburg position, and opened the bladder above the pubes. I then performed retrograde catheterization. In performing the perineal operation I had tied a large mass of bleeding tissue, and discovered on making retrograde catheter-

ization that I had included the corpus spongiosum and the urethra in the ligature. I cut the ligature and introduced a silver catheter, and kept it in the urethra for six weeks; the granulation tissue grew around the catheter and restored the urethra completely. Subsequently, by gradual dilatation, I increased the calibre to No. 30, and kept it at this by occasional dilatation, by the sound.

The second case occurred two years ago last summer. A man, in vaulting on his bicycle, missed his aim and landed upon his wheel. He ruptured his urethra without breaking the skin. There was complete retention, and I began a perineal section. After a long search for the urethra I was about to give it up and do a suprapubic operation, when I succeeded in finding the urethra. I left a catheter in for several weeks, and succeeded in re-establishing the calibre of the urethra as in the former patient. It is possible that the same thing might be done here. If the silver catheter is left in place the granulation-tissue might spring up around it and obviate the necessity of a plastic operation. At all events, it would make a subsequent operation less extensive.

Dr. Packard: About 15 years ago a boy was brought into the Pennsylvania Hospital, who had fallen across a board and caused rupture of the urethra very close to the bladder. In that case there was no sloughing, simply a rupture at the neck of the bladder, just within the sphincter. He was brought in from the country, and attempts had been made to pass the catheter, but without success. I had him put in the lithotomy position, and made a perineal section. I was in hope of finding the vesical extremity of the urethra, but that was not possible, and I therefore resorted to the same expedient as that which Dr. Keen has spoken of. I performed suprapubic section and retrograde catheterization. I succeeded in passing a soft instrument through from the penis, and I had no further trouble, and the patient made a good recovery.

Dr. Henry R. Wharton: I recall

having seen four cases of impacted urethral calculus. The first was a boy four or five years of age, under the care of Dr. Lenox Hodge, at the Children's Hospital in this city. He was brought in several days after impaction occurred, and sloughing and urinary infiltration existed. He died in the course of a few days after operation, and it was found at the autopsy that he had typical surgical kidneys. The next case was a child five or six years of age, a patient of Dr. Samuel Ashhurst, in which I helped him operate. The impaction had only existed for 24 hours, and there was no gangrene and no rupture of the urethra. It was found impossible to remove the calculus through the meatus, and an incision was made just behind the stone, and it was taken out. A couple of stitches were used to bring the wound together, but they did not hold well, and the wound healed eventually by granulations. The next case was a man who was brought into the Presbyterian Hospital with retention of urine for 24 hours. He had a stone in the urethra at the peno-scrotal junction. I succeeded in grasping the stone with forceps introduced into the urethra, and removed the calculus without difficulty; the patient recovered. The last case was one seen with Dr. Dick; it was a boy four years of age. Retention of the urine had existed for 24 hours. I went prepared to operate, but just before I reached the house I was informed that he had passed the stone, which I now present, and there was no further trouble. In all the cases I have seen the impaction has occurred at the junction of the penis with the scrotum, which seems a favorite place for the stone to be arrested in its passage. With regard to the subsequent treatment of the case shown by Dr. Morton, it appears to me to be better to wait to see how much will remain after cicatrization is complete. In such a case I would make a perineal section before attempting to reconstruct the urethra. The condition is more favorable than hypospadias, because a considerable part of the anterior urethra is present.

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PHILADELPHIA, APRIL 13, 1895.

DIPHTHERIA ANTITOXINE ACCIDENTS.

Some recent appalling accidents have followed the injection of diphtheria antitoxine, but, when carefully analyzed, may not mean more than results occasionally observed in the employment of other new methods of treatment.

It always follows the introduction of new remedies that, owing to physicians being unaccustomed to the use of them, some accidents happen, or, on account of individual susceptibilities and advanced stages of disease before the new remedy is tried, a fatal result sometimes suddenly follows.

It is just as well in the present condition of the antitoxine furor to be on the conservative side. We trust all physicians will stand in a position of willingness to be convinced of its effectiveness, hopeful that we have an able remedy for diphtheria, but, while ready to experiment carefully, will not be too sanguine of specific effects.

It is well to remember right here that there have been other specifics, so-called, for this disease, which have uniformly and justly been relegated to the position of obscurity after the craze was over.

In the New York Academy of Medicine, last Thursday, an animated discussion is reported to have taken place between Dr. Joseph Winters and others, in which the former is said to have made an emphatic attack on antitoxine, based on the results of 150 cases in which the remedy was used in the Willard Parker Hospital, of that city. He stated that the statistics used in the paper read included many cases of simple tonsillitis and normal throats, the latter having been supposed to be subjected to the influence of diphtheria. He stated that every case of throat affection which was sent to the Board of Health for diagnosis was invariably returned as "diphtheria," whether it was a case of simple tonsillitis or some other difficulty. There is in New York a divided opinion among the profession for and against the antitoxine treatment.

All this is unfortunate, but may be the result of too hasty conclusions. Dr. Winters said that he had failed to see any improvement in any cases of septic diphtheria, and the others would recover without serum treatment with proper care, sometimes without any treatment.

Dr. Biggs, of the Health Board, who read the statistic paper of the Willard Parker Hospital, in closing the discussion made a bitter speech in which he said that many of Dr. Winters' statements were untrue, and laid the reduced mortality this year from diphtheria to the result of the new treatment. No cases were sent to the hospital as diphtheria which were not so reported to the Board of Health by practicing physicians as such. The meeting broke up amid great excitement at nearly midnight.

Regarding the case of Bertha Valentine, who died in 10 minutes at Brooklyn, after an injection of antitoxine, there seems to be no doubt but that the fault lies outside of the remedy. The serum from the same

lot as used in this case was tried on guinea pigs and the animals suffered no inconvenience whatever from the injections. The possibility of air being injected at the same time does seem to exist, but no more so than might occur from a similar injection of morphine or other drug. We can hardly conceive a physician being so ignorant of the usual rules of making injections as not to exclude all air from his syringe before operating.

Summing all the facts at the present time it seems that while there is considerable evidence that the serum treatment of diphtheria does not produce certain curative effects in all cases, we should still remain open to further proof of its inefficiency before we are willing to give up the hope of its specific effect. We further believe that the quality of the antitoxine should be vouched for, and obtained from good, reliable houses.

ACCESSORY MECHANICAL SUPPORTS AS THERAPEUTIC ADJUVANTS.

The ingenuity of man, combined with the advances in the arts, of late years, has vastly expanded the field of mechanical therapy. Its range of adaptability is an ever-widening one, and by its appropriate utilization we may yet realize astounding results. We will, at present, ask attention only to the great value of the simpler contrivances, which are inexpensive and are always accessible, viz.: The bandage, the binder and the chest-girth, or more properly speaking, the Murphy Corset.

It is needless to speak of the great value of the bandage as a supporter and protector when skillfully applied, nor should there be any diversity of opinion in the use of the binder after confinement, which gives support and secures rest to the overstrained abdominal muscles; besides, aids in overcoming that tendency to ventral bulging from muscular inertia, occasionally seen in the matron who has borne many children. But one of the most useful contrivances, for its cheapness and simplicity, that has been given to the

profession in many years is a sort of a waist-shaped binder, for mammary compression, in those cases in which the gland is painful or threatened with inflammation, or in those cases wherein it is desirable to suppress the secretion of milk, after delivery.

The principle of action is uniform compression of the large vessels against the underlying costal shafts, for after it is applied turgescence perceptibly disappears, and the breast promptly becomes limp, pliable and painless. This device may be utilized with great advantage for retentive purposes or dressings in any surgical operation on the chest walls, in cases of amputation of the breast or in fractures of any of the ribs.

Miss Murphy, the chief nurse of the New York Maternity, is the inventor of this most admirable adjustment; like Madame La Chapelle's numerous valuable contributions in her maternity work, this demonstrates that if we are to permit the "gentler sex" to compete with us, we must put more energy into our work, for with equal opportunities the ladies will in the future, no doubt, press us closely in the race for advanced position. To appreciate the great value of the Murphy Corset we advise our readers to give it an early trial.

CUT THEM DOWN, WRITE BRIEFLY AND CONDENSE FACTS.

Is it not a rational question that we should ask, "Cannot the average writer or speaker make an effort to express his views, or impress his arguments within a limited compass?"

Sometimes we come across a contribution, or the report of a clinical lecture, which contains amidst a mass of excessive verbiage under which there are obscured a few valuable grains of information or knowledge. In some instances it would appear that the writer was under an impression that as long as he restricted himself to the rules of rhetoric and grammar, he had a license

to amplify indefinitely, or that he was writing for a prize for the production of an essay that would contain the most words and the least ideas. And, with some lecturers, not of an inferior order either, let it be understood, we would imagine that they were speaking against time, or that a "long-winded," cumbersome description was an essential part of an address. Sometimes, the high position of the speaker may permit of this practice, but there is such a thing as a limitation to human endurance.

"He was so full of his subject," said a spectator, of a well-known surgeon, "that while he was cutting up and ligating the internal-iliac, he incessantly talked science, and his tongue went faster than his hand."

Another will open an essay with such a lengthy introduction that the reader may become weary before the real pith and core of the subject is directly taken up.

Clearness and brevity, with a concentration of expression, are what give a subject real strength and value.

It is true that too much compression is not compatible with the detail of description needed in deductive instruction, but, in the average dissertation, such fullness rather weakens than imparts that vigor and perspicuity which are so essential to real worth and indelible impression.

OPENING OF THE BIOLOGICAL LABORATORY OF THE H. K. MULFORD COMPANY.

Through the kind invitation of the H. K. Mulford Company the physicians of Philadelphia and other invited guests assembled on Wednesday, April 3, to inspect the new laboratory, for the manufacture of diphtheria antitoxine, recently established by them.

During the last of 1894 this enterprising firm secured the services of Dr. Joseph McFarland and Dr. Leonard Pearson, of the University of Pennsylvania, to prepare a reliable diphtheria antitoxine.

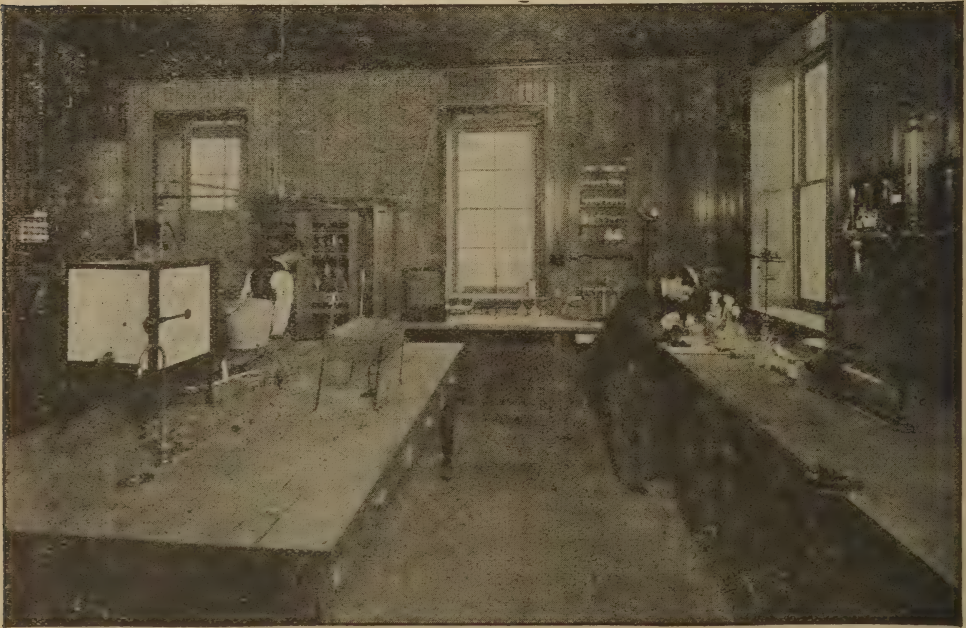
Great care has been used and no



Biological Department

Biological Laboratory

H. K. Mulford Company



Biological Department

Bacetriological Laboratory

H. K. Mulford Company

undue haste in the preparation of this product. The laboratory, which is freely opened to inspection, has

every facility for the cultivation of reliable products. Every precaution is taken in the manufacture, and no



Biological Department

Injecting the Toxin

H. K. Mulford Company



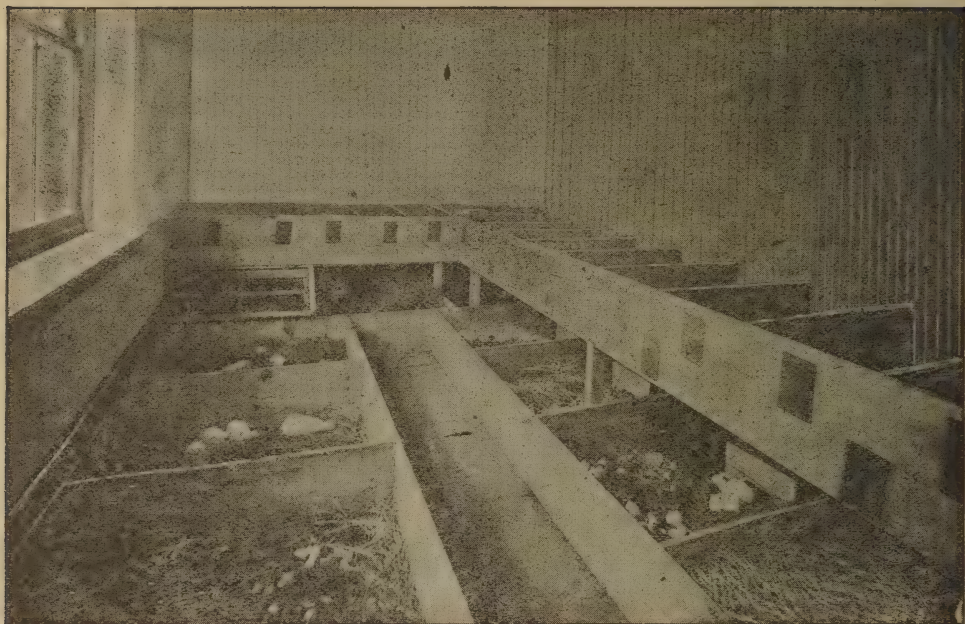
From Biological Department

Horses Immunized against Diphtheria Toxin

H. K. Mulford Company

product is allowed to go out without having been thoroughly tested as to strength and quality.

The horses used are fine healthy looking animals and thoroughly tested before immunization is begun.



Biological Department

Animal Room

H. K. Mulford Company



Biological Department

Drawing Blood from Immunized Horse

H. K. Mulford Company

The application of the serum naturally varies, according to the purposes for which it is employed,

whether for immunization or cure, as well as the age, body weight and stage of the disease. But one

strength of the antitoxine is manufactured which is prepared by grading the product, obtained from the immunization process, by adding more serum if the antitoxine is too strong, or vice versa, if it is too weak. The strengths of the various antitoxines differ according to the brand and are expressed in what are known as immunity units. An immunity unit is the amount of serum required to save a five hundred gramme guinea pig from the minimum fatal dose of the diphtheria toxine. One cc. of the diphtheria antitoxic serum, prepared by this company, protects 50,000 grammes of guinea pig and contains 100 immunity units, which would protect an individual weighing 100 times as much as a guinea pig (about 120 pounds), if the susceptibility were the same. As the susceptibility is not the same the exact number of immunity units required for each administration must be based upon the results of clinical experience, which shows that about 10 times as much of the antitoxine is required by the human species, in proportion to the body weight, as is required by the guinea pig. The number of units in each bottle of antitoxine as well as the date of each marketed product is fully displayed on the label.

The whole process is exceedingly interesting and shows a great amount of perseverance and care to produce a reliable diphtheria antitoxic serum which we trust will meet every requirement and success which this new remedy is capable of. Certainly no better facilities for a reliable product can be had and no more faithful, conscientious work has been given than displayed by the manufacturers in this laboratory.

THE PASSING OF THE "AMERICAN LANCET."

With the issue of the American Lancet for the current month, Dr. Leartus Connor, after a service of nearly 24 years, retires from the editorial chair, and with his withdrawal the publication of the Lancet comes to an end.

Book Reviews.

SUGGESTIVE THERAPEUTICS IN PSYCHOPATHIA SEXUALIS; WITH ESPECIAL REFERENCE TO CONTRARY SEXUAL INSTINCT. By Dr. A. Von Schrenck-Notzing, Munich, Germany. Authorized translation from the German by Charles Gilbert Chaddock, M. D., St. Louis. One volume, royal octavo, 325 pages. Extra cloth, \$2.50 net; sheep, \$3.50 net. Sold only by subscription to the medical profession exclusively. Philadelphia: The F. A. Davis Company, Publishers, 1916 Cherry street.

This volume consists of about 300 pages, divided as follows:

Section 1. Sexual hyperesthesia, which is treated of under three chapters, the first embracing onanism satyriasis and nymphomania, in their various manifestations, the second describes their treatment by "suggestion," while the third is made up of cases illustrative of the disease.

Section 2. Includes sexual impotence and anesthesia, subdivided into chapters on pathology, treatment and cases.

Section 3 is devoted to sexual paraesthesia describing the varieties of sexual perversion, with a history of its development in ancient times, and the influence of heredity and education on the same, together with chapters on diagnosis, prognosis and treatment illustrated as in the previous sections by case histories.

The whole subject of anomalous sexual functions is an extensive and important one from a medico-legal point of view. Every few days the newspapers chronicle crimes depending on disorder or diseases traceable to the centres governing the sexual function. The work is, of course, written in a scientific manner, and intended for the profession, and whilst it is a valuable contribution to knowledge still to one unacquainted.

ed with the literature on the subject it is somewhat startling, since it shows up a phase of human nature which in a moral sense is very degraded. In some respect the method of treatment might be open to criticism. Thus, as a therapeutic measure in the treatment of these cases prostitution is not condemned "as in the present state of society, many individuals cannot afford marriage, and it is senseless to oppose non-marital intercourse, and to insist on absolute continence;" also, "the idea of complete health includes the complete and regular satisfaction of all the needs of man and that is the goal for which hygiene must strive, and not seek to stifle one of the most important functions of the organism." But as the book was written with the purpose of relieving a form of psychical disorder, which, although not always recognized, is nevertheless a frequent cause of hopeless insanity, as a means to prevent which infraction of the code of morals is of little consequence.

The author considers that the minimum of evil can only be obtained by education of the young; that a real sexual education is as important or perhaps more so than any other branch of knowledge, "since it would remove the foundation on which rests onanism and perversion of the sexual instincts." Such means would be more efficient than police regulations, which can always be evaded. As he mentions, "whole libraries have been written on nutrition and diet, while an equally important function is so far neglected that scarcely a work on a strictly physiological basis can be found."

The treatment rests on hygiene, genito-urinary sedatives and, above all, as the trouble is generally due to diseased imagination, methods which will act directly on that, such as hypnotic suggestion, afford the best hope of cure.

The book will be valuable to those interested in legal medicine; and also those who are anxious for the abolition of views which have debased humanity from time immemorial. The treatment indicated is necessarily limited to those skilled in hypnotic methods. E. W. B.

BOOKS AND PAMPHLETS RECEIVED.

SONDERABDRUCK AUS DER ALLEGEMEINEN MEDICINISCHEN CENTRAL-ZEITUNG.

REPORT OF A CASE OF PATHOLOGICAL SEPARATION OF THE LOWER EPIPHYSIS OF THE FEMUR. By A. H. Meisenbach, M. D., St. Louis. Reprinted from *Annals of Surgery*, February, 1895.

EARLY DIAGNOSIS OF CANCER OF THE UTERUS. By Edwin Ricketts, M. D., Cincinnati.

CHLOROFORM IN LABOR* By Edwin Ricketts, M. D., of Cincinnati, O. Reprinted from *Virginia Medical Monthly*, February, 1895.

EIGHTEENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE STATE OF NEW JERSEY, AND REPORT OF THE BUREAU OF VITAL STATISTICS. 1894.

REPORT OF THE BOARD OF HEALTH OF THE CITY OF READING. For the year 1894.

A TREATISE ON THE WINE OF COD LIVER OIL WITH PEP-TONATE OF IRON. Originated and manufactured by Frederick Stearns & Co., Manufacturing Pharmacists, Detroit, Mich.

INFECTION AND IMMUNITY WITH SPECIAL REFERENCE TO THE NEW DIPHTHERIA ANTITOXINE. By Charles Russell Bardeen, B. A., Assistant in Histology, Johns Hopkins University. Reprinted from the *School Bulletin*, Syracuse, N. Y. C. W. Bardeen, Publisher, 1895.

MALTINE WITH COCOA WINE. Thirty-six page pamphlet issued by The Maltine Company, New York.

E. MERCK DARMSTADT. Annual Report on the year 1894. Published in March, 1895.

THE EXTERNAL AND INTERNAL USE OF GUAIACOL, WITH BRIEF REPORTS OF CASES. By J. M. Anders, M. D., Ph. D. Reprinted from the *Therapeutic Gazette*, March 15, 1895.

SEASONAL INFLUENCES IN ERYSIPELAS WITH STATISTICS. By J. M. Anders, M. D., Ph. D., Professor of Medicine and

Clinical Medicine, Medico-Chirurgical College, Philadelphia. Reprinted from the transactions of the American Climatological Association, 1893.

PROCEEDINGS OF THE SANITARY CONVENTION HELD AT UNION CITY, OCTOBER 25 AND 26, 1894. Supplement to the Report of the Michigan State Board of Health for the year 1895.

TWENTIETH ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN, FOR THE FISCAL YEAR ENDING JUNE 30, 1892.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA. ANNUAL REPORT OF THE COMPTROLLER OF THE CURRENCY TO THE THIRD SESSION OF THE FIFTY-THIRD CONGRESS OF THE UNITED STATES. December 3, 1894.

Electro-Therapeutics.

IN CHARGE OF
DR. S. H. MONELL, New York.

A SHORT STUDY OF FARADISM.

The "Short Study of Galvanism," last published in this column, will now be followed by a similar consideration of the currents derived from induction coils. Faradic batteries, both those of early make and of recent but coarse structure, have been greatly discredited in therapeutic work. Experiments with new apparatus producing a sinusoidal form of current, and with currents of high potential and varying degrees of frequency derived from improved static machines through transformers and condensers, have necessitated further development of the common Faradic apparatus to save it from being discarded altogether. It is plain that if the cheaper and more convenient portable battery can be made to furnish currents which approach in quality and value those of the more expensive devices that the

usefulness of the Faradic battery will be greatly increased.

Leading makers have already put high-grade Faradic apparatus on the market and the nearer they come to equalling the newer alternators, etc., the better they are.

While the older and cheaper batteries remained mere crude, mechanical affairs without any semblance of scientific refinement the Faradic current was used almost wholly to cause coarse muscular contractions. It was not fit for much else. As coils, interrupters and current controllers have been developed into a high state of efficiency the therapeutic range of the resulting currents has been correspondingly developed.

Such an induction apparatus as that recently made for me by the Jerome Kidder Manufacturing Company, of New York, represents the fullest efficiency so far attained, and furnished effects most nearly allied to those of the static induced and sinusoidal currents.

Coarse currents of Faradic coils are graphically represented by wave tracings, but the finer currents from coils of long, fine wire cannot be so traced.

The vacuum tube furnishes a better test of the smoothness, equality and character of the higher tension currents. The faradic make and break currents are so unlike as to produce nearly the effect of an interrupted current flowing in one direction, instead of the effect of an alternating current.

When electrodes of equal size are applied to muscles, with the same E. M. F., the negative pole will be found to produce very much the greatest stimulation. For all practical purposes we may discard the old fiction that the faradic poles are alike, and that it makes no difference which pole is employed. It may make no difference with the trumpery affairs sold as family batteries, but it makes a great deal of difference with a proper scientific apparatus, manipulated by an expert. Polar effects are alike in true alternating currents with equal make and break, but the faradic induction coil does not produce such a current, nor do

we wish it to do so, as it is a decided advantage to have the variety we now secure with unequal poles.

It is difficult to deal exactly with the subject of the physiological effects of the induction coil current because the variations in effect shift with kaleidoscopic swiftness with every change in the devices through which the current is passed on its way from the primary cell to the patient. In this respect there is a marked difference between the galvanic and faradic switch boards. One may be very simple, while the other is necessarily as complicated as the conditions of the case require. The galvanic current may be considered as the natural flow of an electric stream, doing its work because of its inherent qualities and powers, while faradic currents are artificial, produced and modified by mechanical contrivances, and do their work chiefly because of their mechanical energy. The galvanic stream is a marvel, a miracle, a mystery of subtle, silent force; the faradic energy is ingenious and valuable, but it is not an awe-inspiring, wonder-working subtle activity.

Nearly the whole influence of faradic currents within the tissue results from the contracting effect upon muscular fibres. It is indefinite to speak of the effects of the "faradic current" or of "faradism," but in what follows the reader must consider that many modifications of current strength and length and frequency of periods are required to produce the complicated results described. With a high-grade apparatus it is as if we were dealing with a score of separate currents instead of a single one. Let us now note the main points of action with secondary coils.

A copper wire of large calibre will conduct a much larger dose of electricity to the patient than a wire of fine cross section. A short wire offers less resistance than a long one of the same diameter. These facts enable manufacturers to make coils for medical use that, with a given E. M. F., will produce a variety of dosage—small, medium and large—as may

be desired. By also employing E. M. F. of adjustable voltage, from zero to the maximum required, and by interrupting the current at various rates of speed, we can stimulate or soothe; can produce intermittent muscular contraction or physiological tetanus; can allay or cause pain; combat congestion and even inflammation; can reduce hyperplasia, relieve a contusion, increase wasted or non-developed muscular structure; tranquilize the nervous and circulatory systems, increase peristalsis, promote nutrition and hasten absorption, etc.

It is generally supposed that powerful muscular contractions produced by faradism are painful. This is only partly true. Contractions with ordinary induction coils, or the static induced or any other form of electrical application are painful if coarse coils, large Leyden jars, etc., are used with an E. M. F. that exceeds tolerance.

A long, fine wire coil, producing a true high tension faradic current, will be as painless as the small jar static induced. Such a faradic current may be slowly interrupted, say 40 times a minute, and the E. M. F. may be great enough to cause contractions of the arm muscles from the hands to the shoulder with perfect comfort to the patient and no sense of pain whatever. I regard this current, as produced by the battery designed by me, as the nearest approach to the static induced current (small jars) we possess.

It may be stated in general that the shorter, coarser wire coils of improved faradic batteries are used mainly for muscular effects. They would also be used for recent injuries associated with venous distension. With the coarse coil a slow rate of interruption is also generally employed, the use of the rapid vibrator being usually confined to the medium and long coils. It is these which produce the currents of higher tension which effect nerve sedation, allay pain and combat congestive and inflammatory processes, and which have revolutionized the uses of faradic electricity.

As external applications are familiar to most physicians who employ faradism at all, I will pass at once to the effects of applications to mucous surfaces. Owing to lack of sensitive nerves and to the very much greater conductivity of moist, soft, mucous tissues a given current produces far less pain than when applied to the tough, resisting skin. Not only is a greater degree of tolerance present but larger doses are employed than in other lines of treatment. Referring especially to applications within the vagina, the coarse coils and slow vibrator may be used to develop an infantile uterus, stimulate functional activity, lessen subinvolution, impart tone to weakened muscles in cases of prolapse, etc.

While the longer coils are referred to as sedative, yet a mild and painless stimulating effect may be secured at will from even the longest and finest coil employed by simply swelling the current or by decreasing the frequency of the periods, or by steadily holding the E. M. F. up to full tolerance and making the treatment short. In a general way stimulating applications should be given less often and for shorter seances than sedative ones, for we can over-stimulate, but we run no risk of producing too much sedation in an irritated part. To secure the nearest approach to local anesthesia that we can get we use the rapidly interrupted, smooth, fine current from one of the longer, or the longest coil, according to the state of irritability we are to treat. The positive pole is placed nearest the seat of pain, and the negative should be on a neutral point so situated that the current and blood flow will harmonize in direction. With a bipolar electrode the positive is placed at the tip. The current should be slowly and gradually increased so that no distress will be caused. When up to the limit of comfortable tolerance let it remain until it becomes barely perceptible, or say 15 minutes. Then reduce the dose to the point where sensation ceases and close the sitting in five minutes. The exact rule as to time of seance must, however, be governed by the effect.

In some cases an hour may be required to secure the utmost benefit, in an acute and painful condition.

Apart from local polar effects there results from the gynecological applications as well as from the more general methods of faradization a marked gain in nutritive processes. Cases of anemia are notably improved by bipolar faradization of the pelvic organs.

S. H. MONELL, M. D.

Ophthalmology.

IN CHARGE OF

DR. J. A. TENNEY, Boston, Mass.

THE SALICYLATE OF SODIUM IN EXOPHTHALMIC GOITRE.

Dr. Chibret reports in the *Revue Generale d'Ophthalmologie* four cases of exophthalmic goitre, that were treated successfully with sodium salicylate.

The first was a lady of 44 years of age, who had a high degree of exophthalmos goitre and tachycardia. The salicylate of sodium was given in doses of 20 grains four times a day. In four days there was considerable improvement, which persisted.

A man 42 years of age also had the triad of symptoms, and was given a similar dose. The action of the heart was so violent as to prevent his taking exercise, and made it almost impossible for him to sleep. Slow walking brought on asphyxia and profuse sweats. He resumed his farm labors at the end of one month.

A lady 31 years of age had exophthalmos and tachycardia, but slight goitre. Improved in three days. If the remedy was discontinued the symptoms invariably returned. She was able to leave off the salicylate in one year.

Another lady, 40 years old, had the three symptoms. Her condition was improved at once. She recovered, in spite of a life of worry, that is liable to aggravate the disease.

Dr. Chibret was led to use this remedy because the disease appeared to him to resemble gout in its progressive attacks and periods of quiet, and because he sometimes found a

history of arthritis in this class of patients. He has found better results following the use of this remedy than he has ever seen follow it in arthritic disorders.

He gives the salicylate in a pint of fluid. He then finds that the patient bears it well, even in cases of intolerance. If the patient threatens to abandon its use he would reduce the dose to one-half or less. In doses of 10 grains he has never seen any intolerance.

TUMOR OF THE OPTIC THALAMUS.

At the meeting of the New York Neurological Society in January Dr. Edward D. Fisher described a case of headache, followed by progressive paralysis and death.

The patient was a woman, 25 years of age, who had always had good health. The family history was negative. She first complained of severe headaches in April, 1894. The eyes were examined, but no changes were discovered. The pain, which was excessive, was located on the right side and posteriorly. The patient was somewhat stupid. The thyroid gland was enlarged on the right side, the left hand and arm were weak, and there was marked ataxia. The speech was not affected. Sensation to pain was diminished, and she was unable to distinguish between heat and cold. There was no vomiting and no convulsions, and the pulse and temperature were normal.

On July 21, 1894, Dr. Fisher found marked paresis of the left side. The patient appeared to be hysterical. There was dragging of the foot in walking. The headache and the stupor increased and the vision began to fail. August 31 Dr. Carl Koller examined the eyes, and found left hemianopsia and papillitis, with paralysis of the left abducens muscle. A diagnosis was then made of tumor at the base of the brain, involving the right crura cerebri above the third nerve, and compressing the right optic tract.

On September 12 blindness was complete, with optic atrophy. The

diagnosis of tumor in the optic thalamus was then made. The patient went into a comatose state, and died September 16. The autopsy revealed a glioma in the right optic thalamus, compressing the optic tract by its extension downward.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

SERUM TREATMENT OF DIPHTHERIA.

Vierordt (Deut. med. Woch., March 14, 1895) has treated 75 cases with Behring's serum. In 61 cases Loeffler's bacillus was found, and to this number two other cases must be added, as other children in the same house suffered from diphtheria, bacteriologically proved. From these 63 cases eight are deducted either as being moribund on admission or owing to some additional lesion being found after death. The mortality was then found to be 14 per cent., as against 67 to 37 per cent. in the preceding six years. If the moribund cases were added the mortality would be 25 per cent. Among those not tracheotomized the mortality was 2.7 per cent., and among the tracheotomized 46 per cent., the latter number not being more favorable than hitherto. Of the 24 cases admitted with the larynx intact only one died, and, indeed, only one of these cases developed the barking cough. Of five admitted with a croupy cough and hoarseness one died. Of 23 cases admitted with stridor and retraction of the soft parts 13 were tracheotomized; in nine of these 23 cases the symptoms of obstruction passed off without tracheotomy in 18 to 48 hours, a fact hitherto not within the author's experience. Early treatment did not always prevent a fatal issue. The cases did not appear slighter, but even, perhaps, more serious than usual (37 belonged to the severe or very severe group). No noticeable changes were seen in the membrane after the injection. The absence of spread to the larynx was

remarkable. In short, a number of very severe, even desperate, cases recovered. A favorable action on the heart's action was noted. Albuminuria seemed to play a smaller part than hitherto. Paralysis of the palate was noted frequently, but no extension occurred. The author has never seen a rapid fall of temperature after the injection. A rash was noted 15 times. A relapse occurred five times. The author concludes that no remote harmful effect was produced by the serum. Although these cases provide no absolute scientific proof, Vierordt is more and more inclined to believe in the specific action of the serum. Its use is imperative. Cases should be treated without waiting for bacteriological proof. Less than 1000 units should be rarely used in slight cases in the young, and should be repeated in severer cases within 24 to 48 hours. The author draws attention to the rigid character of the observations which should be made upon cases treated with the serum. It must be some time before the value of the method can be absolutely proved.

ICHTHYOL IN THE TREATMENT OF TUBERCULOSIS.

At a meeting of the Royal Academy of Turin on March 8, Scarpa (Gazz. degli Osped. e delle Cliniche, March 16) communicated the results obtained in 150 cases of pulmonary phthisis treated with ichthyol between April, 1894, and January, 1895. Having referred to the favorable results of the treatment reported by Cohn, of Hamburg, in 100 cases of the same disease, the author pointed out that from what was known of the action of ichthyol as an astringent of the vascular system, as an antiseptic, as a disinfectant of the digestive apparatus, and as an ailment d'épargne it was a priori presumable that it would be useful in phthisis. He employed the drug in the purest possible state, dissolved in the proportion of one-third in distilled water or any suitable vehicle. Of this solution he gave from 20 to 180 or 200 drops, dissolved in water, in the course of the day. The rem-

edy was in all cases well borne. No other treatment was employed beyond attention to the hygienic environment and feeding up. Of the 150 cases 23 died; all these were in a desperate condition before the treatment was begun; but even in them the ichthyol appeared to do good. Of the remaining cases 17 were apparently cured; in 50 there was notable improvement; in 32 there was some improvement; in 28, up to the date of report, the treatment had produced no effect. The good effect of the ichthyol shows itself first in the influence which it has on the symptoms produced by the local lesions—cough, expectoration, dyspnea—afterward on the general condition. Physical examination shows profound modifications in the lesions, especially in the circumscribed infiltrations of the early stage, but also not infrequently those of the breaking-down stage. The author does not attempt to decide whether the ichthyol acts only by improving nutrition or also by direct action on the lesions, or by neutralizing the toxins produced by micro-organisms—both Koch's bacillus and the staphylococci, etc., which are the causes of secondary infections. He insists on the advantages which ichthyol presents over guaiacol in the treatment of tuberculosis.

THE EFFECT OF SERUM INJECTIONS ON THE TEMPERATURE AND PULSE.

Variot (Sem. Med., March 6) has studied this question. All children under suspicion of diphtheria who are admitted into the Trousseau Hospital receive, as soon as they come in, an injection of 20 c.cm. of diphtheria antitoxin. This practice has given the author the opportunity of observing in the children who do not develop diphtheria the physiological effects of the serum injections. His observations show that they cause a rise of temperature of from one-half degree to 1 degree C., sometimes more. At the same time the heart's action is quickened and the pulse beat becomes more frequent. These

phenomena are often followed by cardiac asthenia and arrhythmia of the pulse. Variot thinks it probable that this artificial febrile action plays a certain part in the process of cure, being analogous to the normal febrile reaction seen after serious but curable diphtherias before the serum came into use. Rendu pointed out that in three cases in which he had used the serum in adult patients no rise of temperature followed the injections. Variot thought it possible that the febrile reaction might have been overlooked in these cases owing to the temperature not being taken with sufficient frequency.

TREATMENT OF HEMATEMESIS FROM GASTRIC ULCER.

Enjoin absolute rest in bed, forbidding motion or speech. Apply an ice-bag over the epigastrium. Order iced drinks, ice to suck, and every two hours a cachet containing sodium bicarbonate, 0.50 gramme (7.3-4 grains); rhatany-powder, 0.10 gramme (1.3-4 grains); opium powder, 0.01 gramme (1-6 grain). Give a hypodermic injection, every half-hour, of 1 cubic centimetre (15.1-2 minims) of the following solution; Ergotine, 2 grammes (31 grains); glycerin, cherry-laurel water, each 5 grammes (1.1-4 fluid drachms); as food, a glass of iced milk every two hours, and an injection of yolks of 2 eggs, 10 grammes (2.1-2 drachms) of dry peptones, and 300 grammes (9.1-2 fluid ounces) of milk. Between the attacks have the patient observe a strict milk diet, taking a glass of fresh milk every two hours, with a teaspoonful of dry peptones if the pain is not too severe. Follow the milk with bicarbonate of soda, giving a little in water after each glass of milk. If pain is very severe, prescribe the following: Hydrochlorate of morphine, 0.05 gramme (7.8 grain); hydrochlorate of cocaine, 0.50 gramme (7.3-4 grains); cherry-laurel water, 10 grammes (2.1-2 fluid drachms); julep, 100 grammes (3.1-4 fluid ounces). A tablespoonful three times a day. Continue the treatment until pain has completely ceased, when food may

be gradually resumed, preparations of milk, eggs and meat-powders being first allowed, milk with Vichy water being the only drink.—Dr. Malbec in *Med. T. & H. G.*

Gynecology and Obstetrics.

ACCIDENTAL HEMORRHAGE IN LABOR.

When the os is small and labor-pains weak or absent, preserve the membranes intact as long as possible; in external hemorrhage plug the vagina. If labor is well advanced rupture the membranes, and if hemorrhage continue, deliver by the safest method available. In internal, concealed, and in some cases of external, hemorrhage, if a vital necessity, deliver by accouchment force, or Porro's operation. In all cases proceed with as little force and precipitation as possible.—Dr. W. J. Smyly in *Med. Times & H. G.*

"INDUCED" MALPRACTICE.

A recent example of newspaper medicine is the outcome of a Coroner's inquest in a case of alleged criminal abortion. The Deputy Coroner is made to testify as follows: "The girl, he found, had died of endometritis, peritonitis, and double pleurisy, caused by malpractice, but whether it was induced or not he was unable to say. In his examination he said that the autopsy revealed that medicines had not been used."—*N. Y. Med. Journal.*

PURULENT INFECTION IN THE LYING-IN PERIOD.

Intra-uterine injections of iodine; if the temperature does not fall, curetting, or at first simple swabbing out of the uterus. As much nourishment as possible, with alcoholic drinks. Quinine, 1 gramme (15.1-2 grains) in two doses, morning and evening, increasing to 1.50 grammes (23.1-4 grains), but not exceeding 2 grammes (31 grains) in twenty-four hours. Cold ablutions; wet cloths on the head, stomach and thighs;

wet packs, or cold baths. When temperature exceeds 38.5 degrees C. (101.4 degrees F.), no cold baths.—Professor Tarnier in Med. T. & H. G.

CONCEPTION.

The menstrual cycle, if it may be so termed, consisting of 28 days, usually, and embracing time of menstrual flux and intervening days, may be divided into two periods, viz., a genetic and an agenetic period. The genetic period embraces the first 18 days of the menstrual cycle. During this period conception is most likely to occur. If conception occurs within the first third of this period, the parental vigor being equal or nearly so, the child will be a girl; but if conception occurs within the last third the child will be a boy. Within the second third, the earlier or later the period in which conception occurs will govern the sex approximately.

The agenetic period embraces from the 19th day to the close of the menstrual cycle. Within this period conception rarely occurs.—Medical Brief.

CURETTING THE UTERUS IN RETAINED PLACENTA.

Oui, of Bordeaux (*Annales de Gynec. et d'Obstet.*, February, 1895), comments on eight cases of curetting for the removal of placental relics after abortion. The cases all recovered, but Oui bids us remember that certain adjectives applied to the curette by its opponents are not entirely undeserved. The curette has been called "blind." The cri uterin is not trustworthy; Oui declares that it is sometimes heard when the instrument is scraping the surface of placental tissue. It is "unreliable." In two of Oui's cases portions of placenta were left behind, so that a fresh scraping was found necessary. It is "dangerous." This is true; in many cases the operator has poked a hole through the uterus. These objections, however, apply to any other surgical instrument unskilfully used. The operator need not be blind, his finger possesses a sense denied to steel instruments.

He must not rely on the curette, and he must use it gently. Two conditions are needed to ensure safety and efficiency when the curette is used. The cervix must be well dilated, and the uterine cavity well explored by the finger. Chloroform is needless, except for very timid women; the curette gives less pain than is felt by the patient during manual extraction. A cutting, not a blunt, curette should be used. Oui finds the irrigating curette clumsy. Swabbing with creasoted glycerine or iodine and intrauterine injections are needed whenever the curette is used, and after the swabbing the uterus and vagina must be plugged with iodoform gauze.

NORMAL EXPULSION OF PLACENTA: DUNCAN OR SCHULTZE?

Teuffel (*Monatschrift fur Geburtshulfe u. Gynak.*, February, 1895) reports 25 cases in which he allowed the placenta to be expelled spontaneously. He made these observations in order to determine the truth of the theory that the placenta is rolled up by the uterine contractions on an axis corresponding to the long axis of the uterus, so as to present by its lower margin (Matthews Duncan) and of the other theory that, especially when the uterus is inert, the placenta is inverted and comes out with its fetal surface foremost (Schultze). Teuffel noted that in 31 cases the placenta was completely inverted, in eight not inverted (Duncan's theory), and in four incompletely inverted. In all the eight which were expelled in the manner Matthews Duncan held to be normal the rent in the membranes lay close to the border of the placenta. In the 13 cases of inversion the rent was found to be central (that is, opposite or as far as possible from the placenta) in 9; in three the tear in the membranes was between the centre and the placental margin. In only one were the membranes torn close to the margin. In the four cases of incomplete inversion the tear was never central, but eccentric in three and marginal in one case. Teuffel sees cause in the site of the

rent and effect in the manner of expulsion. When the after-pains set in the placenta site is lessened the placenta thickened and if the marginal attachment of the membranes be intact the placenta is pressed forwards, assuming a spherical form. The inverted position of the expelled structure is thus assumed, no effusion of blood is necessary to cause it or to hasten expulsion. When the membranes are rent close to the margin of placenta the latter meets with no resistance, so that its edge at the site of laceration is pushed down and takes the lead, after Duncan's fashion. It is evident that any pressure or kneading of the obstetrician's hands on the outside of the uterus tends to expel the placenta in Duncan's manner, as the edge of the structure at some point or other is certain to be pushed forward. Hence Fehling's results, which favor this method of expulsion.

LIVING PREMATURE INFANTS.

Villemin (*Annales de Gynec. et d'Obstet.*, February, 1895) read notes last autumn at a meeting of the Paris Obstetrical Society, on a child which at that date was 31 months old, and of a fine physical and mental development. It was delivered at five and one-half months or at the longest computation at the sixth month. It weighed at birth less than two pounds (950 grammes). By aid of the conveuse and the most careful feeding it was successfully reared. Maygrier declared that he had in one of his wards a six months' child a week old; it weighed only 770 grammes, or under one pound 12 ounces, but it seemed to be sinking. Budin observed that he had known 6 1-2 months' babies to live for a day or two. The respiration was almost purely bronchial, the lungs did not float, and the vesicles were found full of epithelial cells. It is easy to believe that a strong premature infant could succeed in clearing the pulmonary vesicles and live. Charpentier had successfully reared an infant which weighed less than two pounds five ounces at birth.

Therapeutics.

IN CHARGE OF
DR. LOUIS LEWIS, Philadelphia.

A NEW USE FOR TUBERCULIN.

From Vienna comes the intelligence that Professor Wagner is treating insanity by inoculations of tuberculin. The treatment is said to be meeting with success. Experience hitherto has not demonstrated the induction of substitution diseases to have been of any benefit.—The P. & S.

TETANUS ANTITOXIN.

The antitoxin treatment of tetanus seems likely to be as successful as that of diphtheria. Experimentally the effects of the antitoxin are little short of marvelous. Minute doses injected into animals completely neutralize fatal doses of tetanus toxin injected eight or ten hours afterward. The antitoxin also seems to possess curative powers, but much larger doses are necessary when the disease has declared itself than when the substance is used only as an immunizing substance. Immunization is likely to be the key-note of modern medical progress, and doubtless new triumphs are in view.—The P. and S.

THE ANIMAL EXTRACTS.

The employment of animal extracts as therapeutic remedies dates from time immemorial. Pliny tells us that the Greeks and Romans were accustomed in cases of impotence to make use of the seminal fluid and testicles of donkeys, animals noted for the disproportionate size of the testes. The famous preparations of castor and musk were introduced by Galen, and enjoyed fame and credit for centuries. From that period to the present day numerous examples of this kind of remedy have always existed in our materia medica.

WHOOPIING COUGH.

A contributor to the *Therapeutische Monatshefte* relates the case of a boy, aged 5, whom he had been treating for several weeks for a violent whooping cough. Every variety

of treatment was tried, but without result. One day the child fell and fractured his femur; in order to set it, he was put well under chloroform, and from that hour the cough ceased. The author suggests that there was more than an accidental coincidence in this. It should be noted, however, that the cough had already lasted six months.

Cases of acute or prolonged whooping cough are frequently followed by dilatation and incompetency of the right side of the heart, induced by the disturbance to the intrathoracic circulation. Puffy eyelids, some cyanosis of the mucous membrane, slight albuminuria, increase of cardiac area, are amongst the symptoms of this affection. Owing to the strain in the pulmonary circulation, the irritation of the cough is maintained, and nothing succeeds in curing the the whoop. Hence the importance of watching the heart and noting any failure during whooping cough. For treatment nothing is better than digitalis. The circulation soon improves, and the attacks of whooping soon abate and disappear.

REGARDING HEART TONICS.

Professor Von Ziemssen objects to the tinctures of digitalis and strophanthus on account of their unreliability, and says that both of them should be struck out of the Pharmacopeia. He uses digitalis only in infusion or powder; and strophanthus, in the form of strophanthine, in the dose of 1-64 grain twice a day. This is not cumulative in its action, and, although not so lasting in its effect as digitalis, is the most preferable substitute (Munch. med. Woch., No. 50, 1894). The tincture of strophanthus is conveniently prescribed in one of the compressed forms, and is not only reliable, but free from the nauseating effect the tincture sometimes has.

Strychnine is the best remedy to restore the heart's action during the compensating period of valvular insufficiency. When existing compensation is disturbed, it is also a valuable adjunct of digitalis.

NITRO-GLYCERINE IN SCIATICA.

Dr. Lawrence (Rivista de Ciencias Medicas de Barcelona), reports the case of a carpenter, of 52 years of age, who suffered for several years with sciatica. In order to alleviate the pain he had become a morphia user, and could not abandon the habit. After trying a multitude of drugs, he gave him a 1-100 solution of nitroglycerine, one drop three times a day, gradually increasing the dose to five drops. Relief was almost immediate, and in 10 days he could resume his work, completely cured.

ARISTOL IN OPHTHALMIC PRACTICE.

Heuse (Therap. Monatsh., February, 1895), as the result of lengthened investigations, finds that aristol is an excellent remedy in long existing corneal ulcers, especially where the base is covered by pus which is not readily detached. While several other applications failed, aristol applied as a powder by means of a brush, the eye being subsequently closed, led to the cleansing of the ulcer in two days. A curative action, however, cannot be ascribed to the powder. As an ointment containing 5 per cent., it proved most successful in ulcerative blepharitis and obstinate chronic hordeola, where, on account of its non-irritating properties, it might be used henceforth in preference to the yellow oxide of mercury.

Miscellany.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

The forty-fifth annual meeting will be held in Chambersburg, on Tuesday, Wednesday, Thursday and Friday, May 21, 22, 23 and 24, 1895, commencing on Tuesday, May 21, at 9 A. M.

APPOINTMENTS FOR 1895.

Address on Practice of Medicine, Dr. I. C. Gable, York; address on Surgery, Dr. C. L. Stevens, Athens; address on Obstetrics, Dr. W. B. Ul-

rich, Chester; address on Mental Disorders, Dr. F. X. Dercum, Philadelphia; address on Otology, Dr. L. H. Taylor, Wilkesbarre; address on Hygiene, Dr. Hildegard N. Longsdorf, Dickinson.

TO BE ACTED UPON.

Report of Committee on Contagious Ophthalmia, Dr. J. A. Lippincott, Pittsburg, chairman; Report of Committee on Rush Monument Fund, Dr. W. Murray Weidman, Reading, chairman; Report of Committee on Pharmacy, Dr. Adolph Koenig, Pittsburg, chairman; Report of the Legislative Committee, Dr. I. C. Gable, York chairman; Report of Committee on Increase of Membership, Dr. C. L. Stevens, Athens, chairman; Report from the State Board of Medical Examiners.

AMENDMENTS TO RULES AND BY-LAWS.

That all papers presented shall be limited to 10 minutes in delivery and each discussion of them to five minutes.

Amend Article XIII by inserting section 7: It shall be the duty of the Committee on Scientific Business to prepare and arrange the programme of scientific papers and discussions, and to furnish a copy of the same to the Committee of Arrangements 30 days before the holding of each meeting.

Section 7 to be Section 8.

Chairman of Committee of Arrangements, Dr. George S. Hull, Chambersburg; Committee on Scientific Business, Dr. Charles W. Dulles, chairman, 4101 Walnut street, Philadelphia, to whom all applications to read papers at this session should be sent.

Secretaries of County Medical Societies are earnestly requested to forward at once complete lists of their officers and members, giving the post-office address of each.

Every delegate, before admission, shall present a certificate of delegation, signed by the president or secretary of his county society.

Every permanent member (not a delegate) before admission, shall present a certificate of good standing in his county society.—Extract from Constitution.

Secretaries, delegates and permanent members are urgently requested to remember these rules, as on several occasions persons have registered who were not in good standing in their County Society.

WM. B. ATKINSON,
Permanent Secretary.

The railroads will sell excursion tickets on card orders. All who desire orders should notify the permanent secretary, stating which railroad must be used.

Prescriptions.

INFLUENZA.

R. Antipirinae gr. v.
Sodæ Bicarb. gr. v.
Spirit Ammon. Aromat. mx.
Elixir Simpl. dr. ss.
Tinct. Opil. mij.
Aq. Anethi ad oz. ss.
M. ft. Dosis

S.—One tablespoonful every half-hour for three doses, then every two hours, every three hours, and afterwards every four hours if still required.

This is a digestible form, and not depressing. The combination of a small dose of laudanum rapidly removes the depressing symptoms, and appears to prevent nervous prostration afterwards. Its combination with antipyrin has been extensively used at one of the largest metropolitan hospitals.

The headache of influenza can generally be best relieved by phenacetin. Its depressing effect is counteracted in the following prescription:

R. Phenacetin, gr. v.
Caffein, Hydrobrom, Efferves, ad dr. ij.

S. To be taken in a wineglass of water, and repeated every two hours for three doses, unless sooner relieved.

PHOSPHATURIA.

R. Acid Benzoic. dr. vj.
Sodæ Bihorat dr. v.
Aquæ ad ounces viij.

M. Sig.—One tablespoonful for a dose.—London Practitioner.

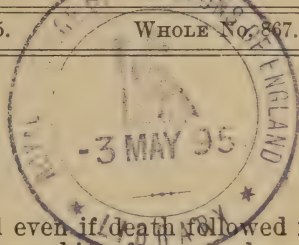
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WHOLE No. 867.

Original.



AMPUTATION OF THE ENTIRE UPPER EXTREMITY (INCLUDING THE CLAVICLE AND SCAPULA) FOR SARCOMA FOLLOWING FRACTURE OF THE CLAVICLE.

BY W. W. KEEN, M. D.
(Philadelphia.)

E. S., aged 21 years, first consulted me early in December, 1894. In May, 1893, he broke his left collar-bone by a fall. In June, 1894, a tumor appeared at this point, which together with one-and-one-half inches of the clavicle, was soon afterward removed by Dr. Stout, of California. The tumor, however, immediately reappeared, and has grown rapidly ever since. For the last month he has been under the care of Dr. Coley, of New York, for treatment by the erysipelas and prodigious toxins, but without obvious benefit. At present there is a large tumor extending from the shoulder to the base of the neck and attached to both clavicle and scapula. It reaches to within two inches of the inner end of the clavicle. I deemed it, however, still possibly operable, because it did not seem to be infiltrating but encapsulated. This conclusion I based upon two grounds: First, that the tumor seemed to be very movable with the shoulder, and, secondly, there was not the slightest edema of the arm. This convinced me that the vessels, and especially the veins, were not yet involved. I told him frankly that it was uncertain whether I could remove the growth, but that if he desired it I would attempt the operation, since he could at least be no worse off by its re-

moval, and even if death followed it would relieve him from weeks or even months of great suffering. He and his family readily consented to operation.

The tumor was ulcerated at two points, and the skin was branny and thick. The conditions, therefore, were unfavorable to a thorough asepsis, but the parts were as thoroughly disinfected as possible. My plan was to adopt the method as described in my paper before the American Surgical Association in May, 1894 (Transactions American Surgical Association, 1894, p. 55, and American Journal of the Medical Sciences, June, 1894), namely, to make one incision at the inner border of the tumor with its centre at the clavicle, and another at a right angle along the line of the clavicle down to the bone, to dissect these flaps, and by drawing away the tumor to uncover as much of the clavicle as possible, removing as much of the inner end as I could, and then search for the vessels. If I found that they could be easily ligated I should then proceed to remove the entire upper extremity. If, however, the vessels could not be reached that I should then close the wound and abandon the operation. Professors Brinton and Hearn, after careful examination of the patient, both agreed with me as to the advisability of attempting it. Accordingly, he entered the Jefferson Medical College Hospital on December 24. His temperature was then 100 degrees. His pain was so severe and constant as to deprive him of much sleep. He was, however, generally in very fair health, though not strong.

Operation, December 26, 1894.—The plan outlined above was carried out. I removed two-and-one-half

inches of the inner end of the clavicle. Drawing the tumor away, and scraping it from the clavicle enabled me to remove much more than I had expected. I then sought for the vessels, and was so fortunate as to be able to dissect them loose and follow them down to the upper border of the pectoralis minor. At no point did I find the tissues under the great pectoral involved. In order to tie the vessels at so low a point I had gradually extended my vertical incision nearly to the axilla, and having secured the vessels I then decided to proceed with the amputation. It was evident that removing the tumor would remove so large a portion of the skin that it would be impossible to approximate the edges. Accordingly, I determined to carry my incision down on the arm nearly to the elbow and to dissect a flap of skin which was healthy from the inside of the arm, and turn it upward so that the lowest end near the elbow would become the highest when turned upward on the neck. In dissecting the arm loose I removed the larger part of both the pectoral muscles and had to tie a number of smaller vessels. The posterior incision was now made, cutting as wide of the tumor as was possible, the incision passing nearly along the posterior border of the scapula. The separation of the extremity was now readily effected, and a moderate number of vessels ligated. After renewed disinfection of the large surface it was closed. The elbow flap was turned upward on the neck and enabled me to cover the entire raw surface by skin without any tension. As the skin of the inner side of the arm near the elbow derived its nourishment not from the branches of the vessels from the axilla but lower down from the arm, its transplantation was analogous to skin grafting, and I regretted afterward that I had not been very careful to dissect from its inner surface all the fatty tissue, of which only a little, however, was left. At four points I inserted between the stitches small portions of iodoform gauze to act as drains.

The patient was put in bed with

apparently little shock, his temperature being 97.6 degrees, though the operation had lasted nearly two hours. His recovery was rapid and satisfactory, the temperature only rising once to over 100 degrees. On the sixth day he was out of bed. A small portion of the posterior edge of the flap from the arm sloughed, tirely well within ten days.

Remarks: At the meeting of the American Surgical Association in Washington, May 29, 1894, I read a paper on "Amputation of the Entire Upper Extremity, Including the Scapula and Clavicle, and of the Arm at the Shoulder-joint, With Special Reference to Methods of Controlling Hemorrhage." The key of the whole situation, as I there pointed out, is very clearly the control of the hemorrhage. In the present case operation had been declined by several surgeons on the ground that the disease was too extensive for a successful amputation. I was convinced, however, that the vessels were not yet invaded, because there was no edema of the arm, and, also, on moving the tumor in various directions it seemed to me not to be so adherent as to prevent my getting under it and obtaining access to the vessels. My impression was that I would be obliged to ligate the subclavian vessels in the first part of their course; but, after resecting the clavicle and tearing through the tissues behind it, one of my assistants was able to drag the tumor outward, and this gave me an unexpectedly easy access to the vessels, which I was able to follow down to the first part of the axillary artery and tie them there. I was the more anxious to tie them low down, because I foresaw that it would be needful to utilize the skin of the inner arm to fill the gap left by the removal of the tumor. Had this not been done a very large raw surface would have been left, either to granulate or to be covered by skin grafting. I very much feared that even so high a ligation as the first part of the axillary would be followed by some sloughing of the flap of the skin, but fortunately only the posterior edge of this flap sloughed to a small extent

and delayed the healing for about ten days or two weeks.

I was unable to follow the typical method of Berger or that of Treves, but was obliged literally to "cut my coat according to my cloth." The branch of the brachial plexus of nerves going to the great pectoral was very easily seen and was a very good guide to the vessels. Each vessel was tied with two ligatures of silk, and the vessel divided between them; the artery was tied first, in order to diminish the amount of blood in the vein, and I found this way very advantageous. The amount of blood lost was not very great, and the shock of the patient was very moderate. He made a most gratifying, uninterrupted recovery. Later, when the slough had separated, a few stitches were inserted to draw the granulating surface together.

Dr. Keen: He weighs less by six pounds than when he entered the hospital, but the portion removed was about ten pounds, so that he has gained about four pounds. The operation was done the day after Christmas, that is, 41 days ago. This is the second operation of this character that I have done; in both the scar was about the same, although in the former case, a young lady, the tumor was not so large. There was very little shock in either case, although the operation lasted two hours. The first patient was out of bed in five days; this patient was out of bed in six days. The shock was much less than I expected from such an extensive dissection. The patient is now in good health.

THE ARTHRITIC DIATHESIS, MIGRAINE, SALOPHEN.

BY DR. A. CLAUS, GHENT.

In a critical essay which I have devoted to the study of migraine, I expressed the opinion that the latter is a constitutional disease, due to an infection or intoxication of the organism. Fere groups one form of migraine, hemicrania ophthalmica, with epilepsy. Although not inclined to go so far, I feel myself, at any rate, justified to compare these two affections with each other in the

threefold respects of etiology, symptomatology and therapeutics. The theory of the toxic or infectious origin of migraine, therefore, approximates to that which Pierre Marie has successfully contended for in regard to the infectious etiology of epilepsy—a theory which, aside from a few details, has been accepted by M. Vander Stricht and by myself in an essay to which was recently awarded the prize by the Academy of Medicine of Belgium.

In the above named critical essay I also supported the view that migraine is to be regarded as an independent affection, chiefly originating from an arthritic diathesis. The excellent school of the Salpêtrière has more than once called the attention of neuropathologists to the relations between migraine and the arthritic diathesis, as well as to those between the latter and various nervous affections.

Charcot especially favored these views of general pathology and frequently reverted to them in his remarkable lectures: (1) "The arthritic diathesis may be represented as a tree, whose principal branches are gout, articular rheumatism, certain forms of migraine, affections of the skin, etc. On the other hand, a tree might be of mental affections, hereditary forms or others, general progressive paralysis, tabes dorsalis, etc."

These two trees to a certain extent thrive together upon the same domain; they are united by their roots and bear such intimate relations to each other that one is often inclined to ask whether it is not the same tree. "Bearing in mind these axioms," says Charcot, "it will be easy to understand the majority of phenomena in the course of nervous affections, which otherwise remain obscure. When you have before you a neuropathic patient, you must regard the disease presented to you as only an episode."

We have taken into account this twofold relationship and expressed the opinion that, aside from the status arthriticus, migraine may be brought into connection with a series of nervous phenomena in neuropathic families.

Migraine, as regards etiology and especially therapeutics, should, therefore, be regarded as a partial manifestation of the arthritic diathesis or as an offshoot of nervous affections.

"It is generally recognized," says Ch. Fere (2), the scholarly physician of Bicetre, "that the neuropathic family presents extensive relations to arthritic affections, in such a degree that both are frequently comprised in one group, the so-called nervous arthritic. In nervous patients and their families we often find rheumatism and even more frequently gout."

Baillarger (3) already recognized this relationship between rheumatism and the neuroses in a general way. He expresses himself as follows in this particular:

"Neuralgias occur frequently in gouty persons, especially migraine. Almost any of the nerves may be affected; trigeminus, brachial plexus, intercostal nerves, sciatica. Paget and DaCosta report cases of neuralgia of the tongue, gums and maxilla."

The relations of the gouty diathesis and migraine are also acknowledged by Axenfeld and Huchard (4). One of the factors, to which too much attention should not be given, is heredity. It is certainly always easy to determine that the patient's ancestors had suffered from the same affection; but we must not lose sight of the bond which connects migraine with the constitutional diseases and the neuroses. It occurs frequently with cutaneous affections, arthritis, rheumatismus nodosus (Charcot), gout, gravel, in cases of hemorrhoids, in tuberculous patients, even when there has been no development of intra-cranial tubercle (Gubler). This demonstrates the great importance, in a clinical sense, of these variable relations which may be transmitted from one generation to another, so that migraine may manifest itself in the descendants of a gouty, rheumatic or hysterical patient.

In a remarkable work Seguin (5) states that he is convinced that in persons suffering from migraine conditions of disturbed nutrition exist,

together with overfilling of the blood with imperfectly oxidized materials—lithemia—conditions which play an important part in the pathogenesis of the attacks. It is certain that many of these persons are gouty, and that from time to time abundant deposits of peroxalate of lime, uric acid and urates occur in their urine. He believes that many indications exist which are to be met by regulation of diet, hygienic measures and appropriate medicinal agents.

Mobius (6), the distinguished German neuropathologist, in a scholarly monograph which has just appeared, does not coincide in this view. He denies the relations existing between migraine and gout, and the statement of Trousseau, who says: "Migraine and gout are sisters." If, in a country, gout and migraine have both gained a foothold, he remarks, it is not surprising that both should occur in the same family or in the same individual, but before attempting to establish this relationship, we must be convinced that their association is observed likewise in those countries where gout is infrequent. "I have never," says Mobius, "seen a person suffering from migraine who previously had suffered from gout or subsequently acquired this disease, and further, I have never been able to obtain a history of gout in his family. In only one instance," he adds ironically, "have I encountered both affections in one family, the man having gout and the wife migraine." Mobius does not share in the view of those who assume the existence of a special relationship between chronic articular rheumatism, muscular rheumatism and migraine. Charcot, he says, speaks chiefly of rheumatismus nodosus. He has determined that among 30 females afflicted with this disease, 12 had previously suffered from migraine, and that the latter at once subsided as soon as the articular swellings made their appearance. Mobius concedes that in hospital practice arthritis deformans frequently occurs in connection with migraine, but maintains that in cases in which migraine disappears

in advanced life at the same times when the joints begin to swell, no positive proof is afforded to warrant us in assuming a substitution of one disease for the other. Oppenheim states in his excellent text book on nervous diseases (1894), that the relations between gout and migraine have not yet been adequately established.

It is peculiar that men of such brilliant powers of observation as Mobius, Charcot and Oppenheim should represent such diametrically opposite views as regards the pathogenesis of migraine. This fact is undoubtedly to be explained on the ground of the differences in the clinical material under observation. In this direction the evidence of Mobius seems to possess a certain amount of importance, but all these contradictory statements, in my opinion, result from the different conceptions of these authors with regard to the nature of the arthritic diathesis. In common with Bouchard we assume that arthritism is a diathesis, a morbid predisposition, occasioned by faulty nutrition. Conformably to this view, arthritis must be considered in a broader sense, and then the relations between migraine and the arthritic diathesis become more evident.

This relationship becomes more striking when we consider the therapeutic results obtained in migraine. The gouty character of neuralgias, says Fere (7) is often made evident by the favorable effects of treatment. Thus, for example, Begbie relates a case of sciatica in a gouty person, which was cured by colchicum; and sciatica and various other nervous disturbances have been often seen to vanish on the appearance of an attack of articular gout. I have reported the case of one of my patients, in which I observed a characteristic migraine alternate with renal colic. The administration of lithia in connection with benzoate of soda and Contrexeville mineral water removed both affections.

The dietetic regimen of gouty persons should approximate to the normal with exception of a slight diminution of the nitrogenous food and an increased supply of alkalies by means

of green vegetables and fruits (8). It is interesting to note that this diet which is adapted for the arthritic diathesis corresponds exactly to that recommended by Mobius (9) in the treatment of migraine. "With reference to diet I am of the opinion that a diet consisting chiefly of vegetables is better borne than an abundance of animal food." Many of these patients, he adds, have become strict vegetarians, and they have since noted that the attacks have disappeared or at least have become more infrequent or less intense.

We will not further discuss the views of Mobius, who sees in this the effect of suggestion. We can readily understand why within certain limits Mobius should have attributed some of the successful results of electro-therapeutics to suggestion; but to ascribe to suggestion effects originating from a radical change in the mode of life strikes us as somewhat exaggerated on the part of the German author. The truth is that a vegetarian diet is so well tolerated by so many sufferers from migraine for the reason that a large number of them are arthritic.

What applies to diet is even more forcibly exemplified by the results of internal medication, and here the axiom is especially appropriate; *naturam morborum curationes ostendunt*. Mobius (10) states that two drugs are to be recommended in migraine, the bromides and the more recent nervines, salicylate of soda, antipyrine, acetanilide, phenacetine, etc. I coincide with him, for both these categories correspond in every respect to the dual arthritic and nervous nature of these affections, which we have endeavored to demonstrate.

Inasmuch as sodium salicylate and antipyrine have proved of great value according to the united testimony of all observers, and especially Oppenheim, this is, in my opinion, attributable to their anti-rheumatic and anti-arthritic effect.

In this connection it is of interest to refer to a new remedy which has been frequently discussed in recent times, and which according to observations made thus far possesses

marked anti-arthritic and analgesic virtues, viz., salophen.

About five weeks ago I was consulted by a lady aged 52 years, who suffered from characteristic hemicrania, recurring at short intervals. She was very corpulent and predisposed to arthritis, her father having suffered from rheumatism and gout. No nervous affections had existed in her family, except that a sister, for some time during the period of puberty, had suffered from melancholic depression. The urine contained a great abundance of urates, which formed a characteristic deposit at the bottom and walls of the vessel.

The case was therefore evidently of arthritic character. Patient had previously taken quinine sulphate with but moderate relief; the attacks recurred at very short intervals; about five or six days. For several months previous to my seeing her she had discarded all medication.

I ordered salophen, 1.0 gm. to be taken during the attack and followed by a second dose at the end of two hours if it was not terminated at that time.

The patient experienced considerable improvement after the first dose and after the second the migraine completely disappeared. She stated that she had not been so rapidly and markedly relieved for a number of years. Since that time she has taken salophen regularly and maintains an appropriate diet. There has been no recurrence of the attacks.

Another case was that of a man aged 62, who had suffered for a number of years from diabetes mellitus and had maintained a strict diet. About every 14 days he was attacked by very severe migraine, which lasted for from five to six hours. None of the remedies employed had afforded any actual relief, although antipyrine rendered the attacks more endurable and appeared to lengthen the intervals. He took the latter regularly on account of its anti-diabetic effect.

On my advice he has replaced antipyrine for the last six weeks by salophen, and since then has had no attack of migraine.

The efficacy of salophen in the treatment of gout, acute articular rheumatism and various other arthritic affections is a well established fact.

The results obtained by various authors, of which we would cite especially Koch, Muller-Darier, Ciulini and A. Vite, Waugh and Lavarand, are very convincing in this direction. The marked analgesic effect of the remedy has been demonstrated by several of the above named authors, as well as by Galloway, DeBuck and Vanderlinden.

The therapeutic effect which we had expected from salophen and obtained in the two briefly described cases can be readily explained from the theoretical considerations which we have just expressed with reference to the pathogenesis of migraine.

These considerations would justify in like manner the use of salophen in the treatment of diabetes and other affections whose pathology is also to be sought in the arthritic diathesis and in a special nervous state. It is also rational to employ salophen in the treatment of chorea. Antipyrine and exalgine have hitherto given the best results in this affection, but salophen, whose anti-arthritic and anti-nervous effects are more intense, would seem, in my opinion, to surpass the two former substances.

The good results which have been derived by us from salophen in migraine of arthritic origin place the relations between arthritism and migraine in a clearer light, and justify the views of the School of Salpêtrière, to which belongs the honor of having directed the attention of the medical world to this etiological relationship.

1. Leçons du Mardi, 2nd Edit., Vol. 1, p. 23.
2. La Famille Neuropathique, 1894, p. 136.
3. Ibid, p. 154.
4. Traité de Nevroses, p. 231.
5. Leçons sur le Traitement des Nevroses, 1883.
6. Migraine, Nothnagel's Encyclopedia, 1894; Holder, Vienna.
7. Loc. Citat., p. 155.
8. Legendre, Traité de Médecine, Vol. 1, p. 300.
9. Loc. Citat., p. 87.
10. Loc. Citat., p. 89.

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PHYSICIANS IN POLITICS.

In recent issues of various contemporaries, notably the Philadelphia Polyclinic and The Medical Press and Circular, London, we have read with much interest the drift of opinion among our ablest writers on the subject of physicians in political positions. Our able Philadelphia exchange considers the subject of "Physicians in Health Boards," a place where, above all others, one would suppose he would be of incalculable service; and we would believe that one taking opposite ground here would have to parry with great tact to demonstrate that even in this place he is by no means necessary and that it is still an open question whether or not the sanitary affairs of a city might not be as well managed without him. But, strange as it may seem at first sight, nevertheless the writer has made a strong case against having medical men on health boards.

Issue is made with the Medical Record, too. "What is needed in such officials," says the writer, "is

executive ability, a good conscience and such knowledge of men and affairs as will enable them to judge between truth and falsehood. It may be said that such persons are rare, but it must also be admitted that a professional training does not necessarily develop the qualities required."

The editor of the Medical Press advises against medical men aspiring for political positions, because of the general poverty of its members and because politics holds out to them no such prospects for fame and high salaried positions as it does to lawyers.

The great test of the superior value of members of our profession in executive positions in a city's administration, especially those departments which have to deal with sanitary matters, is a trial. And, here, truth and candor compel us to seriously question the advantage to the public. Medical men of superior ability will rarely accept those positions, even though good futures should open to them. The terms of office are uncertain and the compensation is inadequate to command superior talent. As a matter of fact, however, with only occasional exceptions, few, if any, medical men only succeed to political office except those who are professional politicians or have a strong political backing; and these lucky ones in no sense are representative of the best element in the profession. Moreover, in many instances a serious injustice is often permitted, whenever our medical brethren are elevated to important political positions, to the rank and file, whose sustenance depends on the precarious returns of a general practice. Now, as a matter of fact, many medical men drawing large salaries hold on to their private practice, their college connections and office cases, thereby interfering with what righteously belongs to the plodding practitioner.

In one's endeavor to carry both one is certain to be neglected, and we doubt very much if either receives the attention it requires.

But, it may be asked, would we on general principles oppose physi-

cians stepping outside the strict domain of medicine to engage in other pursuits, political as well as others? By no means we would not; but, let the practitioner not fail to understand that when he steps outside the ranks of the medical arena to engage in politics he should announce his withdrawal from practice, and not stand in the way of others. A citizen physician certainly does not lose caste because he engages in other pursuits, when it is understood by the public and profession that he gives his undivided attention to them and drops his title.

We have now in mind a prominent individual in industrial affairs who graduated in medicine with special honors; another engaged in a vast shopping trade; another until lately at the head of one of our great telegraph systems; another yet who served his internship in a hospital, hung out his shingle, became impatient, gave away his books and instruments and entered his father's shoe shop and has prospered. None of these ever prescribe except to their own family.

Come! let us be fair in this matter and not forget that the profession of medicine is one of sacrifice, and that he who is not prepared to make it would do well to turn his attention to something else.

Let the profession be properly organized; let it extirpate those cancer-roots which are penetrating its vitals, the excess of hospitals and dispensaries, and it can fairly prosper without huckstering to politicians.

THE NEW CONSUMPTION CURE.

New cures for chronic diseases are continually springing up and we are not surprised to learn through the daily press that a New York physician in Berlin has developed another remedy for tuberculosis. This is said to be pilocarpine.

Time will only tell whether the remedy is good for anything or not. The plan of treatment, however, seems to us to be in the right line. The action of pilocarpine is that of a stimulant of elimination. We can see no especial value to this drug

over others of its class, except that it is the most powerful agent we possess for this purpose.

Elimination, we have held, is the only means for successfully combating consumption; but elimination may be obtained by various drugs and no one therapeutic agent will be found to meet all requirements. The writer is at present at work testing the value of other agents, which he hopes to be able soon to recommend in the treatment of this disease. These agents increase elimination by stimulating cell activity.

The method of introduction to the system of pilocarpine, which is recommended by Dr. Waldstein, its advocate, is by hypodermic injections of minute doses. The drug at once stimulates the lymphatic glands and increases the white blood corpuscles. The effect is said to be surprising.

The fact that cure of the tuberculous patient comes with a restoration of the functions of the lymphatic system proves what we have before announced in the early numbers of this volume, that the cause of consumption was to be found in a perverted lymphatic system, and a backing up of waste products in certain portions of it.

There is one good thing about these remedies which does not apply to serum treatment, i. e., we know what they are and what they can do.

One requisite which goes with the employment of pilocarpine, or other of this class of drugs, is that the patient must not be far advanced in the disease. When such changes in the system have taken place as imply loss of substance in an organ we cannot expect any marked benefit from drugs whose object is to restore function. We must not be content to rest on elimination alone, either; for good tonic treatment is also required, and it is a combination of these principles that the writer is at present engaged in working into a therapeutic combination.

Every physician knows that pilocarpine is a powerful depressant. Its action must be watched with great precision. Indeed, it may be well to combine with it a heart tonic, or watch the patient for any effect

which the drug may exert on the cardiac muscle. The dose hypordermically must be exceedingly small and not often repeated if exhaustive perspiration is induced.

Book Reviews.

TRANSACTIONS OF THE ANTI-SEPTIC CLUB.

Reported by Albert Abrams, M. D.
Published by E. B. Treat, 5 Cooper
Union, N. Y. Price, \$1.75.

This volume comes laden with sterilized wit and humor. Every page is illumined by the phosphorescent microbes of unalloyed sarcasm, illustrated by pen and pencil.

In this book the thoughtful physician will find much to awaken his curiosity and interest, from the organization of the club, the various papers read and discussed, the testimonials considered, the cases submitted, the hypoderm, and finally the dental clinic at its rooms, all will be found redundant with effervescent exuberance. Here a hundred laughs may be provoked to animate the muscles of mirth, atrophied from the disuse incident to the cares and anxieties of medical practice. Those in quest of a case find here a needed repose in the refreshment outbursts of wit and humor which bubble and sparkle with health-giving cheer as the tale is told; and not a line will be found to be "extra dry."

COD LIVER OIL AND CHEMISTRY.

By. F. Peckel Moller, Ph. D. Can be had of Wm. H. Schieffelein & Co., New York City.

This is an elegant treatise of 492 pages, on cod liver oil and other chemical compounds. It starts off with an introduction on Norway, the Land of the Midnight Sun, and its relation to cod liver oil. There is a descriptive sketch of the Norwegian fisheries which is exceedingly interesting and instructive. This is followed by a chapter on the manufac-

ture of cod liver oil and the various processes used. Following this comes a few pharmaceutical annotations and a chronological synopsis of the chemical researches on cod liver oil, including Heyerdahl's new chemical researches on this article, with concluding remarks concerning rancidity, preparations and emulsions, active principles and a recapitulation.

Part second treats of the law of atomic linking, diagrammatically illustrated. It starts off with the hydrocarbons and an illustrative method of linking the chains of the various compounds in a very unique way.

The next chapter deals with the derivatives of hydrocarbon, the oxygen compounds, alcohols and phenols. Next chapter is devoted to oxygen compounds of ethers; next chapter of oxygen compounds of aldehydes and ketones; then comes oxygen compounds of carbohydrates and glucides; next those of the acids. The seventh chapter deals with the mutual combinations of the preceding groups. The eighth chapter treats of the halogen compounds, chlorine, bromine and iodine. Chapter nine, sulphur compounds. Chapter ten, the nitrogen compounds. Chapter eleven, proteids, ptomaines, leucomaines and ferements. Twelfth, a chat about atoms.

It is difficult in a brief review to convey an idea of the magnitude, clearness and adaptability of this work. It is most beautifully bound. We trust every subscriber to this journal will write to Schieffelein & Co. for a copy.

TWENTIETH CENTURY PRACTICE.

An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume II. Nutritive disorders. New York: William Wood & Co., 1895.

The second volume of this unique work very favorably compares with the preceding one. This series of

twenty volumes bids fair to surpass anything yet printed as an encyclopedia of medical science. Indeed, the whole work is such that no physician can keep in touch with the advancing ideas of modern medicine without it. This work opens with an admirable article on Addison's disease and other diseases of the adrenals, by Sir Dyce Duckworth, of London.

The second article, on "Diabetes Mellitus," is from the pen of Professor von Noorden, of Frankfort, whose studies in metabolism have justly attracted so much attention both in this country and in Europe. Contrary to what we might expect in a treatise written by a German physiologist and pathologist, this article is intensely practical, sixty pages of the one hundred and fifty being devoted to the subject of treatment.

Following this is an exceedingly interesting article on "Rheumatism," by Dr. T. J. MacLagan, of London, the originator of the salicyl treatment of this disease.

The next article on "Gout," by Dr. Henry M. Lyman, of Chicago, the only American writer in this volume—and he has made a worthy contribution to American medical literature. It is not too much to say that the article is one of the most thorough and comprehensive treatises on gout that has ever been written.

"Arthritis Deformans" is the title of the next article, which is from the pen of Dr. A. E. Garrod, a son and worthy pupil of Sir Alfred Garrod.

The sixth article of the volume is one on "Diseases of the Muscles," by Dr. Dujardin-Beaumetz, of Paris.

The closing treatise of the volume is one on "Obesity," by Professor Oertel, of Munich. "Oertel's" is known as one of the most successful methods of treating obesity, and the profession is to be congratulated on having a description of this method and an explanation of its rationale from the hand of the inventor himself.

All this mass of material is made available to the reader by an excellent index in addition to the ordinary table of contents.

The discussions of these various subjects are most thorough and instructive, and will far surpass Pepper's System of Medicine, being much more exhaustive and abreast with the newer ideas of the past decade.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

THE ANTISEPTIC TREATMENT OF BURNS.

An eminent French surgeon recently concluded an article with the above heading in the following words:

1. Fresh, superficial burns, as well as deep ones, can heal under antiseptic treatment without the production of pus.

2. If pus is produced, the wound is disinfected, and the course remains the same as if non infected. But if the pus is of long standing and the wound begins to granulate, then disinfection is not possible.

3. To disinfect widespread burns an anesthetic will often be necessary, and to this end chloroform is best suited.

4. If the wound is non purulent, the unnecessary use of an antiseptic hinders the healing process.

5. Antisepsis is the best analgesic.

6. Burns heal rapidly under the antiseptic treatment. Burns of the second degree require eight days; of the third degree, from two to three weeks.

7. Burns of the second and third degree heal without trace remaining; of the fourth degree, cause a scar, which does not retract, while this will be smoother the less the amount of pus.—Charlotte Med. Journ.

THE TREATMENT OF PENETRATING WOUNDS OF THE LUNG.

In the Gazette hebdomadaire de médecine et de chirurgie for March 2, there is an abstract of an article by M. Hugué and M. Peraire

on this subject, which appeared in the *Revue de chirurgie* for 1895. This article, says the writer, is based on three personal observations and leads to the following conclusions:

1. The absolute necessity of treating the wounded person on the spot; the serious consequences resulting from the jolting of the conveyance, no matter how short the distance, render immediate treatment imperative. If the patient has to be driven some distance, the jolting of the carriage will cause hemoptysis, which may cause death in a short time.

2. The condition of syncope, favoring hemostasis, should, within reasonable limits, not be interfered with. Subcutaneous injections of ether must, therefore, be used but sparingly unless there is too much depression. In these cases caffeine is especially indicated, and injections of artificial serum should be resorted to.

3. The treatment of wounds of the lung by ordinary means must be, in many cases, insufficient if the wounded person is not subjected at once to an immobility as absolute as possible, which, in itself, says the author, may assure success.

4. The treatment by absolute immobility and immobilization of the thorax does not exclude other procedures when they can be effected without interfering with the patient's immobility.

5. Generally, in cases of hemothorax following a lesion of the large blood vessels, the treatment should not be active. The symptoms, and especially the complications, must guide the physician in coming to a determination; thoracocentesis should not be practiced unless the effusion becomes too considerable and symptoms of dyspnea become serious.

6. The practice of carefully cleansing the patient as soon as the wound has been dressed is to be avoided in every case of penetrating wound of the chest; we should content ourselves with what is strictly necessary, to the exclusion of every occasion of shock.—*New York Medical Journal*.

FROG SKIN GRAFTING.

Smith (*Boston Medical and Surgical Journal*, vol. cxxxii, No. 4, p. 79) has reported the case of boy, 5 years old, who suffered a deep and extensive burn, involving an area of the trunk, face and neck. The part involved was bounded by a line extending from the thyroid cartilage down the median line of the body to within an inch of the umbilicus; thence around the trunk to the median line of the back; from here up to the external occipital protuberance; thence to the malar bone on the left, including a portion of the ear; diagonally across the face to the right angle of the mouth, and finally reaching the thyroid cartilage.

When seen, four weeks after the accident, the entire surface was covered with healthy granulations that bled freely upon the slightest touch. The fold of the axilla had become firmly adherent to the chest, binding the arm firmly down. To expedite recovery, and in view of the unfavorable condition of the subject, grafting with the aid of frog-skin was decided upon. Small pieces, each a quarter of an inch square, were placed in rows, each separated from the other by a space of half an inch; and this was repeated until, after the lapse of seven weeks, the whole surface was covered. The treatment was repeated daily, from twenty to eighty frog-grafts and a smaller number of human grafts being used on each occasion. The surface was first cleansed by irrigation with a warm solution of boric acid 1 to 40, and subsequently washed with a stream of sterilized water. Each graft was then firmly pressed into the granulation surface, and subsequently a dressing of boric acid and vaseline, a dram to the ounce, was spread upon strips of compressed cloth and applied so as to fit the parts. Over this was placed sterilized gauze and finally a rubber bandage. In all nearly a thousand frog-grafts and four hundred human grafts were used.

Gynecology and Obstetrics.

EXTRA-UTERINE PREGNANCY.

The advance of abdominal surgery has very much increased our knowledge both of the nature and the treatment of ectopic gestation. Not many years ago the life of a patient subject to this grave anomaly in the reproductive process hung on a thread. The successful results of ovariectomy tempted surgeons to removal of tubal sacs. The operation often proved much harder than was expected. The sac was usually sessile, and buried in clot and firm inflammatory adhesions, but the difficulties were found to be not insuperable. One great result of these successful operations was the discovery of the true nature of hematocele, which is due to ectopic pregnancy far more often than was before suspected. The bold practice of immediate abdominal section when symptoms of rupture of the sac appear soon came into vogue, and the results justified the new operation. Lastly, it was found that the fetus could, under certain circumstances, be removed from its abnormal position and saved. When once a class of operation of the type of ovariectomy becomes established, operators can extend and improve indefinitely. Thus the Russians were late in beginning ovariectomy. But within the last twenty years certain Russian surgeons, seeing the evils of isolated operations, boldly undertook ovariectomy on a large scale. The effect was of course the same as in this country. Very soon the results became satisfactory, they ended in deserv- ing the term "brilliant." It will therefore not surprise us to learn from Zmigrodzky's recent publication that Russian surgeons, learning the details of abdominal section from the excellent results of ovariectomy in their hands, have undertaken the treatment of extra-uterine pregnancy by operative measures. At first their results were, of necessity, poor. Up till 1886, 51 out of 157 operations proved fatal. Yet these

relatively unsatisfactory results perfectly justified the action of the operators. Had nothing been done very few of the unfortunate patients could have survived the dangers of the abnormal pregnancy. Since 1886 only 11 out of 97 similar operations have been successful. Yet the majority of the 86 in which the patient was saved were undertaken for rupture of the sac. Under these circumstances the patient is exhausted and in great danger, for the risk from the inevitable loss of blood preceding the discovery of symptoms is very high. In 1886 secondary operations (abdominal section after the death of the fetus) were attended with a 26 per cent. mortality. Now the mortality has fallen to 11 per cent. Further efforts must be attended with better results. Only 31 cases of ectopic pregnancy in Russia since 1886 have been treated as unfit for operation. In one of these cases cure followed injection of morphine into the sac, in one a 5 per cent. solution of zinc chloride was used with good results. In ten electricity stayed the advance of the pregnancy without, it would seem, entailing any evil effects. In one the same treatment proved useless. Surgery and therapeutics alike will look with suspicion on these palliative proceedings. They are carried on too much in the dark. In abdominal section the operator sees his way. Our Russian brethren must be congratulated on their good surgery and the brilliant results which have fully justified their practice.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

PARALYSIS FOLLOWING TONSILLITIS.

In support of the statement that paralysis similar to that following diphtheria may arise subsequently to other forms of sore throat, the following cases are recorded by Bourges (*Arch. de Med. Experiment*, January, 1895): A child, aged 7, was attacked with sore throat, pyrexia,

etc. There was no membrane, and the illness subsided in 24 hours. About a fortnight later he was again attacked, and this time distinct false membrane appeared on the fauces, but not for three days was there any lividity of the neighboring parts. The glands in the neck were swollen. There was no albuminuria. A few days later the mother, who had constantly nursed the child, was also attacked with sore throat, and membrane formed on the right tonsil. The membrane in each case was examined, cultures made, and mice inoculated. None of these showed the Loeffler bacilli. Various streptococci and staphylococci were found, and some small bacilli staining by Gram's method. About six weeks from the last attack of sore throat the child developed convergent strabismus, paralysis of the soft palate, loss of power in the limbs, and general weakness.

DIPHTHERIA.

Furst (Berl. Klinik, March, 1895,) discusses the clinical and bacteriological early diagnosis in suspicious sore throat. Early diagnosis is one made within 24 to 48 hours. Under the clinical diagnosis the author discusses (1) the indifferent, (2) the suspicious stages, and (3) the stage of the fully developed disease, and he gives at some length the symptoms belonging to these various stages. The bacteriological cannot set aside the clinical examination. The latter enables one to separate simple from other forms of angina with approximate certainty. The bacteriological examination can be effected in from 12 to 24 hours. The presence of the diphtheria bacillus is not absolute proof of the case being one of diphtheria, nor does its absence supply a similar proof of the absence of diphtheria. But these two statements apply only to exceptional cases. The author concludes that a satisfactory bacteriological examination is mostly impossible in private practice. There should be central stations at which such examination can be made. This bacteriological examination is, from the

scientific, practical, and statistical point of view, of the greatest importance. The results of the examination must not always be waited for before the requisite treatment and isolation are adopted. Local treatment with Loeffler's iron-toluol preparation should be practised; a specimen of the exudation can be obtained before the application. Unfortunately, the nasopharynx and larynx cannot always be treated in this way without special experience. Gargling should be used after the application to prevent the burning. The specific antitoxin treatment is of use when the process is not limited to the site of invasion, and when local treatment is impossible. Its drawbacks are its uselessness (1) in septic secondary infections; and (2) in diphtheria of the bronchi; and (3) certain possible after-effects. Local treatment should never be neglected. The author also speaks of the bacteriological examination in those convalescent from diphtheria, and in nurses, etc., as well as of the preventive inoculation.

CONSTIPATION IN YOUNG BABIES.

Dr. Cahen Brach, of Frankfort, recommends cod-liver oil as the best laxative in suckling children; the addition of thirty to sixty grains of milk sugar is also of assistance. Rhubarb, manna, cascara sagrada and other laxatives must, on the other hand, be avoided. Gentle massage of the child's abdomen is, however, perhaps at once the simplest and the best means of overcoming this troublesome condition; it must be used two or three times a day for some five to ten minutes at a time.—*Zeitschr. für Landpr.*

MASSAGE AND ITS EFFECTS ON THE GLANDULAR FUNCTIONS.

Contributo allo Studio dell' Azione Fisiologica del Massaggio.—Carlo Colombo (Lo Sperimentale, Feb. 1, 1895).—The author, as part of his researches into the physiological results of massage, gives the outcome of his investigations as to the effects

produced on the glands of the body. Animals were chosen for all the experiments, those on the sweat-glands excepted. As regards the stomach, the secretion increased from the normal of 15 cubic centimetres to 40, periods of two hours being chosen for each observation. The result was most obvious after massage had been practised about 15 minutes. Among the salivary glands the submaxillary is the most sensitive, five minutes of friction sufficing to rouse it to greater activity, and the liquid that results has the same characters as that flowing after stimulation of the chorda tympani. As regards the kidneys, the first series of experiments showed that the excretion became most intense after 10 minutes; the second investigation was intended to determine the quality of the fluid flowing respectively from each ureter, massage taking place over one lumbar region only, and as a result of the friction there was diminution of specific gravity, increase of epithelial elements, and during the first five minutes slight albuminuria. The secretion from the testicles was examined at its passage through each inguinal canal. Not only was the quantity increased two-fold, but the fluid also contained abundantly the products of the testicle. Friction over one lachrymal gland led to increased activity of both. Thirty minutes of energetic massage sensibly increased the weight and amount of perspiration subsequently produced, but, the potash salts and urea being deficient, the density was lessened. Finally, as regards the liver, 25 minutes of surface friction produced the same effect as deep manipulation during 10 minutes, the best result being obtained by the combined operations during 10 minutes. As a general conclusion, the author states that massage leads to an increased glandular flow, from which it must follow that the epithelial cells are roused to greater activity, and that the inflow of blood, hence also the filtration of serum, are assisted.

REPORT OF A CASE OF ANEMIA.

The following case of anemia in a patient of inherited tuberculous

diathesis yielded so rapidly to a form of treatment which was practically new to me that I feel justified in reporting it for the benefit of those practitioners who have not yet made the experiment:

Miss A. B., aged 18 years; attending high school; father died of phthisis pulmonalis shortly before her birth. The case came under my charge September 15 last in an aggravated anemic condition, characterized by suppression of the menses, grave intestinal disturbance, tympanitic and prospective phthisis abdominalis. In addition to gastric catarrh she had a hacking cough, myalgic pains in the chest walls, an afternoon temperature of 102 to 104 degrees, a rapid and weak pulse.

She had been confined to her bed for several weeks before I was called in. For two weeks I used the treatment usually prescribed in such cases, but without satisfactory results, and I had little hope for her recovery. As a dernier resort, I sent her by way of experiment a sample bottle of Wine of Cod Liver Oil (Stearns) with instructions to follow the directions given on the label. A decided improvement was manifested within a few days. Her appetite improved, assimilation of food became normal, the gastric catarrh disappeared, color returned to her cheeks and her weight increased. I had no previous experience with the Wine of Cod Liver Oil, but as no other medicine was administered in this case, it must be credited with the remarkable results attained. The condition of the digestive functions was such that no emulsion or other ordinary preparation of the oil could have been administered.—Dr. Barber, in the Physician and Surgeon.

THE SENSATION OF THE STOMACH AND DISORDERED DIGESTION.

P. Sollier (Rev. de Med., January, 1895) makes a study of nervous dyspepsias. He says that the sensory innervation of the stomach derived from the sympathetic may, when disturbed, lead to modification in the gastric chemistry. The secretory functions of the stomach depend on the nervous system as well as on the

state of the glands. The sensation of the stomach may be reflex or direct. The former is better known; it leads to the movements of the stomach and also to secretion. If the stomach is insensitive to the contact of food stuffs the glands are not put into action. The stomach has also a sensation proper to itself, and thus heat and cold can be appreciated. This sensation is not so obtuse as has been thought. The most special sensation of the stomach is in respect to food. The sensation of hunger disappears when the stomach becomes anesthetic. Thus, without its own proper sensation there could be no feeling of emptiness, as in hunger, nor yet of satiety, and, without its reflex sensation, no secretion and no motion. There is no subordination of one form of sensation to the other. In nervous dyspepsia there may be a modification in the gastric chemistry or the sensation of the stomach may be involved. Clinically this is best studied in hysterical anorexia. Assimilation appears to improve when hunger returns, and the feeling of hunger reappears only with the restoration of the sensation of the stomach. The anesthesia may involve only the superficial parts of the mucous membrane, or penetrate deeper when the digestive troubles are more marked. The author refers to a superficial cutaneous anesthesia corresponding to the region of the stomach. If the mechanical functions are also involved there may be gastric atony. The same condition of the stomach is noted in melancholia and hypochondriasis. When the treatment is directed to the nervous system these cases improve rapidly without any special regulation of diet.

Therapeutics.

IN CHARGE OF
DR. LOUIS LEWIS, Philadelphia.

SALOPHEN IN RHEUMATISM.

H. Lavrand (*Journ. d. Sci. Med. de Lille*, December 22, 1894) reports seven cases of rheumatism, mostly chronic in character, in which he used salophen. His experience leads

him to conclude that the drug is as powerful as salicylate of soda, both as an analgesic and an anti-rheumatic, without the disagreeable secondary effects (headache, intoxication, noises in the ears) of that drug. As salophen does not decompose in an alkaline medium such as the intestine, it does not disorder the digestion nor cause nausea. It relieves neuralgic as well as rheumatic pains. Being tasteless, patients have no objection to taking it. The average dose is 2 grammes (30 grains) daily, divided into four doses. It is most conveniently given in plain water.

TREATMENT OF UREMIA.

Renaut (*Annales de Med.*, March 14, 1895) in treating uremia endeavors to overcome the renal impermeability by the application to the loins of leeches, which he greatly prefers for this purpose to wet cupping. He demonstrated in 1888 the anastomoses which exist between the subcutaneous blood vessels of the loins and those of the cortex of the kidney. Inhalations of oxygen may be of use in aiding the blood to oxidize the retained toxic products. To increase the circulation in the kidney the muscular substance of the heart must be stimulated, and for this purpose Renaut prefers the administration every four days of 1 miligramme of crystallized digitalin, to be continued even after the renal obstruction has been removed. A milk diet, although it usually increases the daily amount of albumen secreted in the urine, is to be preferred on account of its diuretic action, and because it is a diet yielding very little toxic residue. During the uremic attack subcutaneous injections of ether act as a cardiac stimulant, and to some extent render the nervous system insensible to the action of the toxic agents of uremic origin.

CLIMATOTHERAPY IN GRAVES' DISEASE.

Glax (*Wien. med. Woch.*, March 2, 1895) mentions five cases of Graves' disease which were greatly improved by the mild sea climate of Abbazia. Four of these patients were from 25 to 35 years of age, the remaining one

being 50. In one case the exophthalmos and enlarged thyroid were particularly marked, whereas in the remaining cases the cardiac symptoms of tremor were prominent. In two cases the heart beat was 120 to 140 per minute, and there was evidence of cardiac dilatation. The tachycardia quickly diminished, and the cardiac dilatation disappeared; the general condition also improved, and there was considerable increase in weight. This favorable action of sea air has previously been noted in Graves' disease.

TANNIN AND ENTERITIS.

Kunkler (Allg. med. Central-Zeitung, No. 13, 1895) advocates the use of tannin in cases of enteritis. He considers this drug to have fallen into disuse unadvisedly, and recommends a further trial for it. He gives an account of 41 cases, consisting chiefly of infants and children, and also a few adults. Of these, 27 were cases of chronic enteritis and gastro-enteritis, 12 of acute enteritis, and 2 tuberculous. In all, benefit appears to have resulted from the use of tannin. Some of the cases which had previously been under treatment with naphthalin, calomel and bismuth, without any good result, improved rapidly under tannin. Kunkler recommends in the first stage of an enteritis a combination with a stronger disinfectant such as naphthalin or calomel.

THE CARDIAC PLEXUS IN DIPHTHERITIC PARALYSIS.

In the Archives de Medecine Experimentale et d'Anatomie Pathologique Dr. A. Vincent has written a paper in which he strongly controverts the current view that in convalescence from diphtheria myocarditis is the only condition which leads to cardiac failure. Another view, that this condition is the result of an affection of the vagus or sympathetic, is not favored by the exceedingly slight changes which are found in those nerves. The myocarditic theory, on the other hand, is contradicted by various observations in cases of patients dying in the course of convalescence from diph-

theria in which no affection of the heart muscle was present. Dr. Vincent quotes such a case, which he had himself observed and examined, and he expresses the opinion that the reason why the cardiac failure has not been ascribed to its true cause is because only the nerve trunks have been examined, while the state of the cardiac plexus has been overlooked. In confirmation of the importance of carefully examining this he quotes the case of a man who died from cardiac failure after diphtheria, and in whom a careful examination of the medulla, spinal cord and vagus and sympathetic revealed no abnormality. In the plexus cardiaco-aorticus, however, there were widespread parenchymatous changes differing in degree in different parts, while in the muscle fibres of the heart the transverse striae were well retained as a rule, and only in a few were they indistinct or absent. In the cardiac plexus also similar changes to those above described were found—i. e., changes exactly analogous to those found in the peripheral nerves in post-diphtheritic paralysis. Dr. Vincent accounts for the fact that the trunk of the vagus was not affected by supposing that the course of the disease was so rapid that death ensued before the changes in the trunk of the vagus could manifest themselves. The changes in the plexus were severe and quite out of proportion to the affection of the myocardium, and there could be little doubt that the former were the cause of death. This observation of Dr. Vincent, together with one by Dr. P. Meyer, are said to be the only ones in which the cardiac plexuses have been examined; but the very definite changes described by both observers make it desirable that future observations should be directed to the elucidation of this point.

Philosophy.

To the statement that philosophy is a useless study to a professional man, we enter a flat denial. Not only

has it its uses as a guide in detecting fallacies in every-day matters; in ethics, theology, and speculative reasoning, but through it is engendered the habit of viewing things and circumstances, as not merely by their outward appearance but as having a wider relation as belonging to a general class of which one fact or a group of phenomena are but a part. Making a comparison, in medicine itself, the relation between the philosophical and unphilosophical is that between a treatment of a symptom and the removal of causes. It is the philosophical in medicine which has developed our knowledge of pathology and which does or should govern therapeutic practice.

H. B.

The definition of metaphysics, being the science through which one is bewildered systematically, is true in measure, but philosophy has its physical aspect and this is made year by year to include much of what was heretofore metaphysics, so that the study of philosophy becomes not a matter of confusion but one of enlightenment. There is a type of individual who is innately opposed to generalization; he forms the antithetical element to philosophy. To him the details of any science may be intelligible individually, but collectively they are without significance. Does he study chemistry; the only dry part of it is its philosophy; the laws governing combination. Does he essay physics; the conservation of energy, the correlation of forces, are a bore. In anatomy; table of muscles of ganglia, etc., are memorized faithfully, but a general relation of these matters in the abstract possesses no interest for him.

H. B.

Protagoras.—Listen to a pure inspiration given in the book before quoted: (Nineteenth Century Sense).

"After the manner of a dream was beheld an oblong square showing three separated sprays of lilies. As the dreamer looked wonderingly at the symbol, seeing no meaning in it, explanation projected itself as a Jack might spring from its box. The

word was 'hypostases,' and the association implied that the three separate sprays, or groups, stood for the three parts of which a man is constituted, namely, matter, ego, soul; that it is left with men which they will most cultivate and thus become most like unto, that is, whether they will be material, selfish or godly.

"In his dream the dreamer fixed his gaze earnestly—it may have been by accident, or it may have been out of intuition—on the spray representing soul. As he continued to look this developed little by little into a fullness of bloom which transformed the flower into a size and whiteness such as he had never before beheld. The other two sprays withered and shrunk away correspondingly. . . .

"When the morning came the dreamer wrote down that in a dream he had learned the meaning of differences which characterize men, and as well that he had been given the secret of creating differences."

Cebes.—I comprehend fully, Protagoras, and see clearly, what Socrates has otherwise expressed, that a man's self is creator alike of heaven or hell.

Protagoras.—A man's whole world, Cebes, is nothing different from what himself is.

Miscellany.

THE MEDICAL PRACTICE ACT OF TENNESSEE.

The Medical Practice Act of Tennessee has been declared unconstitutional. The Southern Practitioner says it has no tears to shed over this decision, and thinks the best thing to be done is for the Legislature to repeal the whole thing and get it out of the way.

AMERICAN PUBLISHERS' ASSOCIATION.

Medical editors, publishers and business managers are cordially invited to attend the second annual meeting of the American Medical Publishers' Association, at the Eu-

taw House, Baltimore, Md., May 6, at 9.30 A. M. Subjects of vital importance will be discussed, and a profitable and pleasant session is anticipated.

LONDON B. EDWARDS, M. D.,
President, Richmond, Va.
CHARLES WOOD FASSETT,
Secretary, St. Joseph, Mo.

THE INCOME TAX.

At the request of the chairman of the Board of Censors, the counsel for the society, Mr. Taylor sent a written opinion concerning the income tax in relation to physicians. A physician's office, or that part of his dwelling used as an office, and not the whole house, was exempt in estimating his income.

WHO ARE PRESCRIBING DRUGGISTS?

Dr. Frank Van Fleet referred to the action of the New York Medical Society at its last meeting, calling for the prosecution of prescribing druggists. He wished to know whether persons advertising to fit glasses for errors of refraction did not also violate the law regulating the practice of medicine. The advertisement of one firm of this kind was in the county directory, and he moved to have it expunged. By amendment the matter was referred to the comitia minora with power.—N. Y. Medical Record.

THE FALLACY OF EARLY RISING.

Proverbs are responsible for a great deal of folly, and none perhaps for more mischief under the present conditions of town life than those which inculcate early rising as a virtue. When the great majority lived in villages and were engaged in the cultivation of the soil, early rising may have been conducive to health and wealth, if not to wisdom, but even our early forefathers probably did no more than make a virtue of necessity. It is said to be natural—that is, physiological—to rise early and enjoy the beauties of the sunrise; if we ask why, we are treated to various transcendental theories about the vivifying influ-

ence of the sun, and are told to take example by the birds of the air and the beasts of the field, or so many of them as are not nocturnal in their habits. But as a matter of fact physiology, so far as it has anything to say on the subject at all, is all against the early rising theory. Physiological experiment appears to show that a man does not work best and fastest in the early morning hours, but on the contrary about midday. The desire to rise early, except in those trained from youth to outdoor pursuits, is commonly a sign, not of strength of character and vigor of body, but of advancing age. The very old often sleep much, but they do not sleep long. A long deep sleep, the sleep of youth, requires for its production a thoroughly elastic vascular system. The stiffening vessels of age are not so completely nor so easily controlled by the vasomotor nerves. Hence shorter sleeps. Thus paterfamilias, who goes to bed at 11 P. M., wants to get up at 5 or 6 A. M., and looks upon his healthy son, who prefers to lie till 8, as a sluggard. When this foolish interpretation of a proverb about the health and wealth to be got from early rising is combined with the still more foolish adage which says of sleep: "Six hours for a man, seven for a woman and eight for a fool," then we have a vicious system capable of working great mischief to young people of both sexes. There is a tendency, greatly encouraged in towns by the spread of cycling, to curtail unduly the hours of sleep. Parties of young men and lads are to be met careering about the streets at midnight. They would be far better in bed. They have probably to be in their offices or shops by 9 A. M., or even earlier and when time is deducted for supper, toilet, breakfast and the journey to the place of business, it is evident that the hours for sleep cannot exceed six, or at most seven. These young men are no doubt encouraged by the silly adage quoted above. There is a disposition in town youths to overdo outdoor exercise; the cycling club "night spins" are instances in point. As Nordau has said, with a great

deal of truth, the town-dweller of these last decades of the nineteenth century suffers from nervous fatigue, and is so ill-advised as to make his very recreations sources, not of recuperation, but of increased exhaustion. If our forefathers were early risers they went also early to bed. It would be well for the rising generation if it paid more heed to this part of the proverb.—British Med. Jour.

LIVERPOOL MEDICAL SOCIETY.

Mr. C. Puzey, F.R.C.S., presided.

Mycosis Fungoides.—Dr. Leslie Roberts read a paper on a case of the above. He pointed out that the symptoms in the early stage simulated eczema and other inflammatory eruptions, but were in reality neoplastic in nature. The tumors were infective, but there was no evidence at present of the action of micro-organisms. The autopsy showed the presence of tubercle bacilli in the left lung. The consideration of the histo-pathology of the disease was deferred till the next pathological and microscopical meeting of the society.

The laryngeal irritation after chloroform.—Mr. C. G. Lee read a short paper descriptive of the spasmodic cough and laryngeal irritation that arises to the operator and his assistants when chloroform is administered in an ill-ventilated apartment, and in proximity to a gas flame. The only record of such occurrences Mr. Lee had been able to discover was a paper by Dr. Paterson, of Cardiff, in vol. 42 of *The Practitioner*. Here, however, the patient as well as the surgeon shared in the irritation; while in none of the cases Mr. Lee had observed had the patients been affected at all. The exact nature of the irritating substance was discussed, and Dr. Paterson's view that it was probably carbon oxychloride of phosgene gas was favorably commented on; at the same time the possibility of Hyd HCl as suggested by Dr. Carter sharing in the causation was admitted. That more attention should be given to proper ventilation of operating rooms appeared to be very

desirable, judging from the tone of the discussion following the paper.

Acute Rheumatic Endocarditis.—Dr. Canton read a paper on the course and treatment of the above. While treating 300 cases of acute and subacute rheumatism during the last thirteen years he had observed the occurrence of fifty-one cases of valvular disease. The early signs of cardiac complication were described, also the means employed to prevent it. Thirteen of these cases received no special treatment beyond that appropriate to the rheumatism, and were kept in the hospital on the average 25 days. Thirty-eight were treated by repeated blistering over the cardiac region and by administration of potassium iodide. Treatment was continued for forty-one days. Of this latter number twenty-eight left the hospital without any bruit, and ten with a bruit.—*Provincial Medical Journal*.

MORTALITY IN THE JAPANESE ARMY.

According to *La Medecine Moderne*, the Official Gazette of Japan reports that from July 16 to December 6, 1894, the total number of killed and wounded was about 350, and the deaths from sickness but 430. Although the losses of the navy are not included in these figures, it is not probable that they would bring the total losses for the first five months of the war to a number greater than between 1200 and 1300, which is certainly remarkably small, when one considers the magnitude of the scale upon which operations have been carried on. The Japanese disposed of the bodies of their dead by cremation rather than interment.

A BILL TO PROHIBIT CHILD INSURANCE.

The Committee on Insurance of the Massachusetts Legislature has reported to the House of Representatives a bill to prohibit child insurance in this Commonwealth. The bill is the same as that asked for by the petitioners; it fixes the age limit at ten years, with the exception that a penalty of \$100 is attached for every violation of the act.—*Boston M. and S. Journal*.

SOLVING THE PROBLEM OF PATERNITY.

Possibly it is Mark Twain's retort to M. Paul Blouet that is responsible for the story cabled on the 30th ult., by the London correspondent of the New York Sun. To the flippant Frenchman's fling—that when a wealthy American had nothing else to do he employed himself trying to discover his grandfather—Twain replied that it was different with the Frenchman, rich or poor; his concern is as to the identity of his father. Now it is alleged that M. Groussier, of Paris, has discovered a scientific means of tracing the paternity of children who know not their own fathers, and adds: "It is easy to understand with what alarm the news of such a discovery will be received in a country where illegitimacy is so common as in France." The dispatch fails to define M. Groussier's law, but quotes MM. Bertillon, Zola and Jules Simon as indorsing the claim. Only M. Rochefort is skeptical, and declares that: "Paternity is like the philosopher's stone—you may look for it as much as you like, but you will never find it;" in which the editor of *L'Intransigeant* seems to agree with Shylock's serving-man, Master Launcelot Gobbo, who says: "It is a wise father that knows his own child." The correspondent declares that M. Groussier is overwhelmed not only by requests to apply his law in individual cases, but by threats of direct evils unless he abandons his inquisitorial investigations into domestic secrets. It is more than likely that the dispatch is misdated; it was evidently intended for the 1st of April.—*Journal of A. M. A.*

A NEW IDEA FOR MEDICAL SOCIETIES.

A curious innovation in society work has been introduced by the York Medical Society. Dr. Baxter Tyrie, the president, offered a short time ago a prize for the best impromptu speech, for competition among the members. We learn that about twenty members essayed their

chance in this novel undertaking, and the judges awarded the prize to Mr. Vaughan Bateson, the son of a local solicitor. There is no doubt much room for improvement in the oratory at medical societies, but whether this desirable result will be obtained by the system of awarding a prize to the best speaker is a matter which does not call for serious discussion. It will be a bad day for medical societies when they become converted into mere debating grounds for the benefit of amateur orators, as would be the case were this system to be generally adopted. By all means let medical men learn oratory, if they have the time and opportunity for doing so, but if the art be not worth cultivating for its own sake, independently of the attraction afforded by a president's prize, members of societies not desirous of placing themselves in the position of schoolboys had better in this respect remain silent spectators of the efforts of others.—*Medical Press.*

AMERICAN MEDICAL ASSOCIATION NOTICE.

All who propose to attend the meeting of the American Medical Association at Baltimore purchase through tickets at starting, take a certificate of the agent, which signed at Baltimore by the Permanent Secretary enables the owner to return at one-third. These certificates are not transferrable and must be used not later than three days after the adjournment.

National Association of Railway Surgeons.—The annual convention of the National Association of Railway Surgeons will be held at Chicago on May 1, 2 and 3, 1895. This date was selected by the officers and members of the Executive Committee, so that members wishing to attend the meeting of the American Medical Association, which is to be held on May 7 and following days, will be able to do so on the same trip.

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WHOLE No. 868

Original.

SOMATOSE, A TASTELESS, ODORLESS, ALBUMOSES PREPARATION, AND ITS APPLICATION IN MEDICAL PRACTICE.

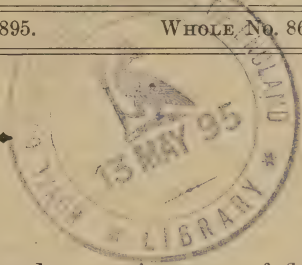
BY RICHARD DREWS, HAMBURG.

Somatose, the albumoses preparation of the Farbenfabriken Vorm., Friedr. Bayer & Co., of Elberfeld, has already become the subject of an extensive literature, so that I believe that the time has arrived to collate the observations thus far published and then add my own, which, in several directions, furnish some new experience in regard to this product.

The question whether the albuminous constituents of the body can be maintained in a state of equilibrium by the peptones as well as by the albumoses could not be decided so long as the investigators employed in their experiments preparations which, although designated as peptones, were not usually pure peptone, but consisted of a mixture of intermediary products between albumen and peptones. After Kuhne had taught us how to separate the different albuminous bodies it was found possible to make metabolic experiments with pure preparations. Politzer and Gerlach arrived at the result that peptone, in the light of Kuhne's teachings, possessed no nutritive value whatever; since its disintegration had so far advanced that it could not make good the demand of the organism for albumen. Voit likewise maintained that peptone is not transferred into albumen and

cannot produce an increase of flesh, that is to say, is not equivalent as a nutriment to albumen. Recently, however, Caln has again recommended this substance, although, according to Voit, the oxidation power of peptone is inferior to that of albumen. Aside from its uncertain nutritive value, there are other properties which render peptone unsuitable for employment at the sick bed—above all its intensely bitter taste, which increases with the greater purity of the preparation, and which belongs to all peptones, whether prepared by digestion with pepsin or pancreatin, or by heating with water in a pressure apparatus. This disagreeable taste can be covered to some extent by corrigents, and by the aromatic vegetable extracts recommended by English manufacturers as solvents, but in a much better manner by meat extracts, such as is done in the preparation of Koch and Kemmerich. Preparations which are free from extractive matters and only contain peptones, such as Witte's preparation, on account of their bitter taste, can only be administered through a stomach tube. The taste of this preparation is so repugnant that it was vomited even by animals used in experiments. On the other hand, the peptones markedly increase the peristaltis of the intestines and have an irritant effect upon the mucous membrane of the digestive tract. On account of their laxative effect they have been recommended in affections attended with constipation.

The manufacturers have, therefore, aimed in their peptone preparations to reduce the amount of pure peptone as much as possible, and in place of it to add the albumoses which has



been especially successful in Kemmerich's preparation. The albumoses are intermediary stages between albumen and peptones; they are more readily soluble and digestible than albumen and are completely assimilated by the organism, so that they are capable of nourishing the body as well as albumen. According to Politzer and Gerlach, the entire quantity of albumen in the food can be taken up by the body in form of albumoses, and not only maintain it in an equilibrium of nutrition, but also cause a gain in flesh. Zuntz, Munk, Von Noorden, Pfeiffer, Ewald and Hildebrandt have confirmed these results. The albumoses are, therefore, real tissue builders, and in their pure state are characterized by tastelessness and odorlessness. As they are besides free from the disagreeable properties of peptone it has for a long time been the aim of manufacturers to isolate the albumoses from the peptones as much as possible and construct a preparation which consists only of albumoses. The difficulties in the way of preparing such a product have been successfully overcome by the Farbenfabriken Vormals. Friedr. Bayer & Co. in Somatose.

Somatose is a yellowish, finely-granular, perfectly odorless and almost tasteless powder, which is completely soluble in water and watery fluids. The albumens precipitated from this solution by diluted acids are redissolved in excess of acids. On heating, the solution gives no precipitate. Tannic acid, mercuric chloride, ferric chloride, sulphosalicylic, ferro-cyanide of potassium and acetic acid give the well-known reactions. The albumoses can be precipitated by alcohol, during which the Biuret reaction is markedly developed with a bluish coloration. Somatose is prepared from fresh meat, and, therefore, contains all the nutritive salts present in fresh meat. The gelatine peptone which forms readily in peptonizing the collagenous tissues or muscle is eliminated, as well as the nitrogenous bases of meat (creatin, xanthin, etc.), since they pass unchanged through the

body are without nutritive value, and can be regarded only as condiments. Somatose contains no fat and no extractive matters. A 2.15 to 5 per cent. solution of Somatose in water, which corresponds approximately to the proportion of a teaspoon or a dessert spoonful in a cup of milk or tea, is almost entirely tasteless, while gelatine peptone can be detected in every solution, even when present in very small quantities, by its taste. A five per cent. solution of Somatose in water has a yellowish brown color and a feebly alkaline reaction. In the cold or hot solution no formation of flocculi takes place, so that by boiling genuine albumen can be differentiated and separated from the albumoses and peptones. Somatose is a preparation of constant uniformity, which contains only the smallest quantity of peptones. Several analyses of various specimens showed, according to Goldmann (Pharmaceutical Zeitung, 1893, No. 86), only slight deviations in the numbers.

	1.	2.
Water	10.04	9.20
Total Nitrogenous Matter.	12.89	12.84
Albumoses	78.00	77.85
Peptone	3.40	2.20
Ash	6.72	6.78

The difference in the amounts of peptones is explained on the ground that in No. 1 the peptone was determined by direct precipitation with ammonium sulphate, and in No. 2 by the rotary power of the strongly concentrated solution. The not inconsiderable minus to one hundred in both analyses is caused by the organic acids which are contained in the ash in form of carbonates, and hence appear in the estimate. To determine the quantity of water the weighing was done in closed flat glass receptacles, since the powder when freed from water is extremely hygroscopic. To produce a constancy in weight, drying 48 hours in a temperature up to 105 degrees was often necessary. The nitrogen was determined according to the method of Kjeldahl. To determine the peptone 20 grammes Somatose were dissolved in water, precipitated by ammonium sulphate, heated in steam, the residue dissolved in water and treated twice

more as previously. The ash was determined in the following manner: Somatose was carbonized, then lixiviated, and the ash and dried filtrate each burned separately. In the incinerated residue the following were found: Magnesium, potassium, calcium, phosphoric acid, sulphuric acid, carbonic acid, traces of chlorine. The ash, therefore, corresponds in its composition to the salts of meats; especially noteworthy is the amount of the potassium phosphate so important for the formation of muscle and cellular tissue.

The non-occurrence of coagulation on boiling and the complete solubility of Somatose demonstrate the absence of unchanged albumen.

The analyses of Helbing and Passemore ("Somatose, the New Meat Nutrient"), in Helbing's Pharmacological Record, No. 29), showed the composition of Somatose to be as follows:

	Soma- tose. per cent.	Dried Soma- tose. per cent.
Water	8.35	
Solid Matter	91.65	100.0
Mineral Matter	6.64	7.24
Potassium Phosphate ..	0.47	0.51
Organic Matter	85.01	92.76
Total Nitrogen	12.9	14.07
Albumose	78.75	85.92
Peptone	1.9	2.07

According to Goldmann, 14.14 per cent. of nitrogen are contained in the dry substance. If we estimate the amount of albumen from the nitrogen by multiplying with 6.25 we would find in Somatose 88.37 per cent. of albuminous constituents. If, however, we use the multiplier for peptone 6.4, which is more closely related to the albumoses, we will obtain as much even as 90.49 per cent. albumens. The albumoses of Somatose consist only of deuto- and hetero-albumose, and it contains neither protero- nor dys-albumoses. In 100 parts Somatose free from salts, peptone and water, there are 48.2 parts deuto- and 51.6 parts hetero-albumoses, according to the procedure of Kuhne.

Somatose, therefore, has a higher nutritive value than any meat extract or other preparation of meat, and contains four times as much al-

bumen than an equal weight of meat. Inasmuch as all albuminous substances are eliminated with extreme care from Liebig's Beef Extract, all meat extracts as well as all broths and soups prepared from fresh meat have no nutritive value, and hence are completely ineffective in cases where it is necessary to promote the nutrition of the patient. Meat extract has only a stimulating effect, which manifests itself by increased secretion of the digestive juices, and acts also through its contained glycogen, which is regarded as one of the main generators of muscular work in metabolism. It is, therefore, of great interest to compare the meat preparations in the market in respect to their nutritive value with Somatose, and to estimate the relative costs as related to the amount of nourishment furnished. If the quantity of albumoses which alone possess nutritive value are considered in the different meat preparations, it will be found that in spite of its apparently high price, Somatose is cheaper than all other meat preparations such as those of Kemmerich, Kochs, Maggi, Denayer and others. Experiments in nutrition with Somatose have shown that it is capable not only of maintaining the body in an equilibrium of nutrition, but also of producing a gain in flesh. These investigations in metabolism have been made by Hildebrandt, of Elberfeld. Hildebrandt first attempted to answer the question whether Somatose is capable of replacing completely an equivalent quantity of albumen if administered in combination with a small quantity of nitrogenous food, which is below the limit of the albuminous requirements of the organism.

The animal employed for the experiment was a dog weighing 22 kilo. During the first period of four days the food consisted of 200 grammes meat, 200 grammes rice, 55 grammes butter, 10 grammes common salt. During the second period of four days the total amount of meat was replaced by 48.6 grammes albumoses and 6.7 grammes extract of beef. During the third period the first-named diet was resumed.

At the close of the first period of

meat feeding there was a condition of nitrogenous equilibrium, at the commencement of the albumoses period a nitrogenous surplus, on the third day a nitrogenous equilibrium and during the following day decrease of nitrogen. On the average, during the albumoses period, the nitrogenous surplus was less than during the meat period. Toward the end of the second the stools became thinner and contained unchanged albumoses, and large quantities of nitrogenous material, while during the same period the excretion of nitrogen in the urine was on the average less than during the periods of meat diet. Inasmuch as during the albumoses period comparatively less nitrogenous material was retained in the tissues of the body, without any essential change in the bodily weight, it must be assumed that the nitrogen of the albumoses has a higher value than meat nitrogen. Hildebrandt succeeded also in causing the absorption of all the albumoses, by replacing only a portion of the nitrogen of the meat through the nitrogen of the albumoses. By proceeding in this manner the nitrogenous excretion in the feces approximates to the slight excretion during the meat diet. The nitrogenous excretion in the urine is almost the same as that during exclusive albumoses feeding. This, therefore, shows that the nitrogen surplus was more considerable during the period of partial albumoses diet than during that of exclusive feeding with albumoses.

If the pure albumoses were actually substances which might serve as a substitute for the albumen of the body, the next step was to investigate whether the albumoses preparation was suitable for purpose of nutrition when introduced into the tissues by way of the cellular tissue; without having undergone any alteration in the stomach or intestines. For this purpose Hildebrandt first convinced himself of the fact that sterile solutions (in 0.7 per cent. sodium chloride solution) of the strength of 5 to 10 per cent. may be injected subcutaneously without exciting inflammation,

while experiments according to Buchner's method for testing chemotaxis gave negative results.

According to Buchner, solutions of hemi-albumoses, that is, the initial products of digestion of albumens, exert a marked attractive power upon leucocytes, while the end products, the peptones, perhaps in consequence of their poisonous character, have a repellant, paralyzing action upon leucocytes. Solutions of Somatose were subcutaneously injected in animals (the 5 per cent. solution being administered in amounts of 0.5-1 gram. pro kilo. of the animal for several days), were well borne, and unattended with local signs of irritation or disturbances of the general health, because the preparation consists only of deuterio and hetero-albumoses of the hemi group as well as of the entire anti groups. The two other constituents of the hemi-albumoses (protero and dys-albumoses), which probably in the above-mentioned investigations of Buchner were the cause of the irritant effects, are absent in the albumoses product of the Farbenfabriken. After injections of 50 c. cm. of albumoses solution (in 0.71 per cent. sodium chloride) in a dog of 10 kilo weight, there was found in the urine neither albumoses peptone, nor albuminates. In cases where the feeding by mouth was prevented it would, therefore, be possible to nourish the patient to some extent by subcutaneous injection of Somatose solution, perhaps with the aid of parenchymatous infusion of salt, which has recently been resorted to in various pathological conditions. In order to elucidate his experiments in metabolism in animals, Hildebrandt (*Zeitschrift für Physiologische Chemie* Band, 18, Heft 2) made an accurate experiment in nutrition on a healthy man aged 28, muscular, without any adipose tissue.

The experiments began with a period of five days' duration, during which the diet consisted of meat, fats and carbo-hydrates; this was followed by a three days' period in which 28.37 per cent. albumen of meat was replaced by an equivalent quantity of albumoses, and a two

days' period in which 63.88 per cent. albumen was thus replaced. During a further fourth period the conditions of the first period of meat diet were restored. The daily quantity of urine decreased during the albumoses period, while its concentration was higher than during the other periods. The nitrogenous excretion in the feces was higher in the second and third periods than in the meat periods. The consistency of the feces was somewhat pasty, not diarrheal.

Hence during the albumoses periods a somewhat smaller nitrogenous surplus occurred than during the periods of meat diet, while the bodily weight increased from 67.25 kilo during the albumoses period to 67.8 and 68 kilo respectively, falling again to 67.7 kilo in the course of the following meat period. It must be assumed, therefore, that the albumoses represent a higher value than the nitrogenous constituents of meat. This assumption is supported by the statement of the person experimented on that he felt stronger and better nourished than during the previous periods, while in the last period of meat diet a feeling of lassitude was experienced.

Recently Adrian reported from Hoppe-Seyler's Laboratory (*Zeitschrift für Physiologische Chemie*, Band, 17, Heft), that the same quantity of nitrogenous food administered in several small portions during the day has a higher nutritive value than the entire food if given at one time, because the albuminous particles dissolved by digestion remain for a shorter time in the intestinal canal until absorption, and are, therefore, not subjective to the further influence of the pancreatic fluid and to decomposition, being absorbed as such (acid albumin, propeptone, peptone). According to Hildebrandt, the increase in weight observed when the bulk of the meat nitrogen was replaced by albumoses is due to the fact that the latter are absorbed essentially in their own form. There is some evidence in favor of the view that an absorption of dissolved albuminous material takes place already in the stomach. Von Mering (*Verhandlungen des XII Congresses für*

Innere Medicin, Wiesbaden, 1893) has shown that solutions of Witte's peptones administered to dogs on whom gastrotomy has been performed were discharged from the pyloric fistula in weaker concentration, so that a portion had, therefore, been absorbed. Hildebrandt found after administration of 6 grammes Somatose in solution by means of a stomach tube to rabbits a small quantity of unchanged albumoses as well as peptones in the urine. After administration of 2 grammes albumoses no traces of these or of peptones could be found, however, in the urine. If the pylorus was ligated there was found after twenty-four hours of 2 grammes only 0.204 grammes albumoses, so that 1.796 must have been absorbed by the stomach. In an experiment on a dog weighing 24 kilo, which received subcutaneously a 5 per cent. sterilized solution, this method of administration was followed by a cessation in the loss of weight previously produced by insufficient feeding, while during internal administration of the albumoses, the decrease in weight was larger. We are, therefore, warranted in assuming the greater nutritive value of the albumoses subcutaneously administered in comparison with the albumoses and meat albumen given internally.

Neumeister asserts that Somatose is excreted unchanged in the urine if injected subcutaneously. He injected 0.1 gm. Somatose into a rabbit and recovered this substance, as he believed, from the urine by precipitation with ammonium sulphate, and no Somatose was present.

Goldmann, therefore, completely confirmed the results of Hildebrandt. He injected into a dog and rabbit subcutaneously 0.5 grammes Somatose dissolved in 10 c. cm. sterilized physiological salt solution, treated the urine with ammonium sulphate, dissolved the residue and precipitated again, until the last precipitate appeared almost colorless. The solution in boiling water, after concentration and cooling, gave with dog's urine neither the sulphosalicylic, nor the biuret reaction; with rabbit's urine, a slight turbidity with

sulpho-salicylic acid but no biuret reaction. An addition of 0.05 grammes Somatose for the urine for purpose of control gave positive reactions. Hildebrandt, therefore, was justified in the opinion that after injection of 0.5 grammes Somatose this substance does not appear either in the urine of dogs or rabbits.

What becomes of the albumoses introduced subcutaneously into the organism? According to A. Schmidt, cytoglobin and preglobulin, the typical components of animal cells, are converted into the blood serum into paraglobulin. Hammersten observed that casein introduced into the blood serum is changed into a body resembling globulin. If albumoses are injected subcutaneously or intravenously in animals, a portion appears in the urine as such, another portion in the form of peptone, although only in slight quantity in comparison to the amount injected, the rest, according to Hildebrandt, being converted into globulin. By direct addition of albumoses solution to fresh blood taken from the vein of a dog, Hildebrandt found a slight retardation of the process of coagulation. The same takes place on addition of deutero-albumose, while hetero-albumose produced a much more marked retardation. Solution of the salts present in this preparation in the corresponding percentage strength also had a marked retarding effect. Injected directly into the vascular system of dogs in the fasting condition neither solutions of albumoses nor of their constituents caused alteration in the coagulability of the blood, in contrast to the behavior of solutions of genuine peptones.

At the sick bed Somatose has proved serviceable both as a dietetic remedy as well as a nutrient in affections of the stomach, especially cancer and phthisis. It is further recommended in all acute diseases, which are attended with fever and debility, in chlorosis and anemia, in rickets; in fact, everywhere where a supply of food rich in albumen and readily digestible is required. One part of Somatose corresponds to about six parts of lean beef in nutritive value, so that single doses vary between

2.5 and 5.0 grammes, while the daily dose may be as high as 40.0 gm. For complete utilization it is better to administer smaller doses, one teaspoonful about three or four times daily. To prepare the solution Goldmann recommends that the powder be stirred into a paste in an equal quantity of water, and then added to the rest of the vehicle, milk, cocoa, coffee, gruels, with or without red wine. Fluids containing tannic acid, such as strong tea and pure red wine, lose somewhat in appearance on addition of Somatose.

To assimilate more closely cow's milk in composition with woman's milk, Dr. Rieth (Berlin Klin. Wochenschr.) advised that the former, after proper dilution, to reduce the quantity of casein, should receive an addition of fat, sugar and albumoses, obtained by heating egg-albumen to 139 degrees. The disadvantage of this albumoses milk consists, however, in that both the evacuations and flatus have an intense odor of sulphureted hydrogen, since the egg-albumen contains sulphur which is retained in the albumoses when prepared according to Rieth's method. Albumoses produced from meat, such as Somatose, contain but slight amounts of sulphur, and hence after administration of milk charged with Somatose the odor of the feces will be much less offensive. According to Goldmann, the addition of Somatose effects a change in the coagulability of cow's milk, which is most advantageous for the digestion of the infant. If to one portion of cow's milk rennet ferment be added and to another rennet and Somatose, the latter will show a coagulum consisting of very soft, almost flocculent casein as in woman's milk, while the milk without addition of Somatose exhibits the well-known thick coagulum. Goldmann recommends as a milk food for infants the following: To one litre of cow's milk add 730 c. cm. water, 10.7 gm. Somatose, 46.0 gm. sugar of milk, and 35.6 gm. fat (that is, 71.0 gm. cream, containing on an average 50 per cent. fat). The entire mixture is then sterilized. This estimate is based on the following figures: Woman's milk contains

—fat, 3.97 per cent.; albumen, 10.78; casein, 1.69; lactose, 5.46. Cow's milk —fat, 3.32 per cent.; albumen, 0.52; casein, 2.91; lactose, 4.84.

This Somatose mother milk is highly recommended by Bosse, who emphasized the advantages of this preparation over all other infant foods in the following manner: "That this product contains no substances heterogeneous in a chemical sense or non-assimilable, and is, therefore, utilized as completely as possible. That it produces a loose, flaky curdling of the casein in the stomach, as in the case of woman's milk, and, therefore, is as digestible as the latter. That it does not transmit substances producing fermentation or disease to the organism, and thus guards the child against digestive troubles and infectious diseases. That it supplies the child with a sufficient quantity of the nutrient salts necessary to the growth of bone and cellular tissue, and thus protects it from rickets and scrofula. And finally, that it does not overtax the digestive organs, but constitutes a readily digestive element for the infantile organism which effects a rapid gain in bodily weight by causing an increase of fat and muscular tissue." "We are therefore completely justified in the statement," says this writer, "that Somatose mother's milk has solved the problem of producing an infant food equivalent to mother's milk in its chemical and physiological constitution, and that feeding with this milk preparation, if conscientiously performed, will give as good results as nutrition from the mother's breast. Moreover, alimentation with Somatose mother's milk is more effective, reliable and attended with less inconvenience, trouble and expense than wet-nursing, and, therefore, decidedly to be preferred to the latter."

Clinical investigations with Somatose have completely confirmed the favorable results derived from physiological experiments. In regard to the clinical employment of the preparation a large number of observations are already at hand, which I will briefly review.

In a case of gastralgia treated by Dr. Scherk, of Hamburg, in which all meat preparations (Liebig and

Kemmerich) previously employed during the attacks had to be discontinued, Somatose was well tolerated, without any inconvenience in comparatively large doses, so that from the use of 400 grammes within four weeks a gain in weight of two pounds was observed. Although this patient was extremely sensitive, she never complained regarding the taste of the remedy.

Dr. Kaatzer, of Bad Rehburg, employed Somatose with good results in phthisis, giving it in milk, gruels, barley water and potato soup. In a case of pulmonary phthisis with large cavities the condition of nutrition was so favorably influenced that the patient was able to return to his home in Brazil. In a case of pulmonary phthisis attended with intestinal tuberculosis the diarrhoea, which had been present for a number of months, was diminished to two stools daily. Kaatzer especially emphasizes the agreeable manner in which this preparation can be administered in contrast to the unpleasant taste of peptones.

Dr. Scholz, of Bad Cudowa, prefers Somatose to the peptones on account of its freedom from taste and odor, and regards the fact that the preparation has no purgative properties as very advantageous.

Professor Stintzing, of Jena, reports from his clinic that he has found Somatose a very serviceable nutrient, readily taken by patients, and well borne in various diseases attended with severe disturbances of nutrition.

Dr. Fisch, of Barmen, employed Somatose successfully in the following cases: 1. In the case of a very ill-nourished and emaciated patient who had been operated upon for gall stones, a gain in strength and weight occurred after its administration for eight days. 2. In a female suffering from acute anemia due to profuse bleeding, a rapid increase of strength was noted. 3. In an ill-nourished female, an increase of weight of 21.2 pounds was obtained from its use during fourteen days. 4. In an ill-nourished woman who suffered from frequent digestive disturbances and constipation, besides a chronic perimetritis, the digestion was improved

by the administration of Somatose, the stools became regular, and during eight days a gain in weight of two pounds ensued from the use of 100 grammes. 5. In a female who had suffered for a number of years from chlorosis and was very anemic, the strength rapidly increased after the use of Somatose; the lips, which previously had been pale, assumed a red color, the menses became regular. 6. In a female with greatly reduced nutrition, who had been treated for dysmenorrhea, one teaspoonful of Somatose was administered four times daily, and after use of 100 grammes in eight days a gain in weight of one pound was produced. All the experiments serve to prove the fact that Somatose is readily absorbed and rapidly improves the vital powers.

Professor Moeli-Lichtenberg, of Berlin, reports from the Insane Asylum of Herzberge that Somatose was well borne by a patient much reduced in nutrition, and that during the time of its employment an increase of bodily weight occurred.

Dr. Ruhle, of Elberfeld, administered Somatose for a number of weeks in doses of one teaspoonful three times daily in oatmeal gruel, and other soups in a case of puerperal septicemia, and is firmly convinced the patient's recovery is attributable to this food. He observed no unpleasant sequelae, as, for example, with regard to the intestines, and regards Somatose as a valuable addition to the materia medica, preferring it in all cases over other preparations of this kind.

Dr. Loewenstein, of Elberfeld, reports a case of pulmonary phthisis, in which in consequence of the irritating cough the patient had attacks of vomiting five or six times daily, and was unable to retain any food even of fluid character. She now resorted to the use of Somatose for four months, and with so good results that the vomiting ceased entirely.

Inasmuch as Somatose is absorbed with such extreme rapidity, and at once takes part in the nutrition without disturbing the stomach, it is possible by its aid to tide the patient over critical periods, since it can take

the place of ordinary food for a long time.

Dr. Frank Woodbury, "Somatose, a New Nitrogenized Food-Product," in the Medical Bulletin, February, 1894, reports a series of experiments with this substance made by Edwin G. Thompson in the Medico-Chirurgical Hospital in Philadelphia. A sailor was admitted with well-marked symptoms of typhoid fever, with a temperature of 103 degrees. The most prominent symptom in the case was irritability of the stomach; even liquid food, milk and broth and similar preparations were persistently rejected by the patient's stomach, until he was in an exhausted condition. A heaping teaspoonful of Somatose in a cup of hot water seasoned with salt and Cayenne pepper was ordered. This was retained, and was much enjoyed by the patient, so that it was ordered to be given at intervals, but the patient repeatedly asked for it himself, as he preferred it to any other form of nourishment. Under its use the irritability of the mucous membrane passed away. The Somatose was continued throughout the entire course of the disease, which was favorably influenced by it, and the patient made a very good recovery. Thompson obtained the same favorable results in another case of typhoid fever, attended with marked gastric irritability and complete inability to retain any nourishment. Both cases, in the author's opinion, proved conclusively the efficacy of Somatose, both as a sedative to the hyperesthetic gastric mucous membrane, and as an acceptable form of nourishment in cases where other articles of food cannot be retained. Equally good results were obtained in a case of chronic gastric catarrh in which Somatose was administered after lavage of the stomach. Woodbury employed the preparation with success in cases of debility, especially of the acute variety, following influenza or after repeated hemorrhage. In pulmonary affections he found it advantageous to add Somatose to broth, milk, coffee, cocoa and other forms of liquid food. By this means the physical strength of the patient and the return to health after acute illness were decidedly influenced for

the better. Woodbury finally emphasizes the utility of Somatose milk, as compared with albumoses milk, since the latter has the disadvantage that both the evacuations and the flatus have an intensely disagreeable odor, which is almost entirely absent during the use of Somatose.

Bartley (Medical and Surgical Reporter, February 3, 1894) regards Somatose as a preparation of the highest nutritive value. He states that fully digested meat preparations cannot be used long without producing diarrhea and other digestive disturbances. His own experience has shown that after a few days patients develop a disgust for such preparations and decline to take them. The greater the proportion of peptones in these preparations the less desirable clinically they are. For this reason completely peptonized milk has been entirely given up in the feeding of infants, because they will not thrive on it even when they can be induced to take it. Bartley employed Somatose in two cases of carcinoma of the stomach, one of phthisis, one of gastric ulcer with dilatation, two of choleraic diarrhea in infants with marked collapse and one of gastro-enteric catarrh (summer diarrhea). In all cases the food was well borne and was retained when all other food was rejected. It was noticeable that in several of the cases, where there was complete anorexia, the appetite returned after from one to three days, and then the patients were able to retain and digest other foods, rendering the further use of Somatose unnecessary. In no case did it produce nausea or diarrhea. The nutritive value of the food could be plainly seen by Bartley in its effect upon the digestion and blood tension. The effect upon the heart seemed to be more permanent than that of a stimulant, and he regarded it as the result of true nutrient action upon the heart muscle, and explained its effect upon the digestive organs in the same way, i. e., by its furnishing nourishment to the mucous membrane of the stomach, as well as to the increased general nutrition. He does not, however, regard Somatose as suitable for long continued use,

but considers it especially useful in an emergency when the digestive organs have failed to appropriate ordinary food. For this purpose it has seemed to him to meet the indications more fully than all other meat preparations on the market. In both of his cases of cholera infantum, a remarkably rapid restoration of the digestive functions occurred after profound disturbances. Bartley concludes that we have in Somatose a valuable nutriment in cases of great exhaustion and in digestive failure.

The most recent publication on Somatose is by Franz Kuhn and Karl Volke from the Medical Clinic of Professor Riegel in Giessen ("Experiments in Nutrition with Somatose, an Albumoses Preparation," Deut. Med. Wochenschrift, 1894, No. 41). These authors believe that the significance of the bodily weight in experiments in metabolism has been too much emphasized in the works of Hildebrandt, and also that the single experimental periods have been too short. They made seven extensive series of experiments with this preparation, varying the methods of the various experiments, which were carried on for twenty days. As regards technique and method of experimentation they fulfilled all the requirements pertaining to the modern study of metabolism. Each substance before injection was analyzed in double samples, the excrements carefully collected and also analyzed. These investigations in nutrition were made both on healthy and diseased persons. In a case of gastric cancer with distinctly palpable tumor and far advanced cachexia no nitrogenous equilibrium occurred during the entire course of twenty days administration of Somatose. On the other hand, as compared with the control period, a diminution in the nitrogenous deficit of 1.0 N. pro die was obtained—a condition of nutrition of not inconsiderable significance in a patient suffering from cancer. After withdrawal of the greater portion of the nitrogenous food administered by mouth, intestinal absorption under administration of Somatose was not much worse than in the control period. A marked im-

provement took place in the condition of the patient during the use of Somatose, notwithstanding the nutritive disturbances. In a case of phthisis with advanced intestinal tuberculosis the general health was much improved by the administration of Somatose. There was a gain in strength and increase of bodily weight and the intense pains in the abdomen were diminished and became more endurable. In the case of gastric cancer the motor functions of the stomach were completely restored, and the paroxysms of vomiting which had previously been present disappeared. In view of the investigations of Cahn (Berlin Klin. Wochenschr.), who states that the peptone preparations hitherto in use have the disagreeable properties of increasing the secretion of hydrochloric acid in the stomach in an excessive degree, Kuhn and Volker made two experiments in regard to this subject. 1. In a case of gastric dilatation due to pyloric disturbances without hypersecretion, Somatose was decidedly inferior to meat or meat powder with regard to the rapidity of its removal from the stomach, but in respect to the secretion the percentage of total acid was less than in the experiments with meat and meat powders. 2. In the second case Somatose was found superior to meat and meat powder in every respect. If the motor activity of the stomach is unimpaired it is more rapidly disposed of, the nitrogenous residue in the stomach at the end of an hour being less than one-fourth of that of the other two preparations. The total acidity and secreted hydrochloric acid amounts to less than during the use of meat, approximating to that during the use of meat powder. Hence the complaints of Cahn against peptones are not applicable to Somatose. Kuhn and Volker as the result of their investigations formulate the following important conclusions:

1. If administered in connection with a diet the nitrogenous constituents of which are inadequate to supply the needs of the organism for proteids, somatose is capable of completely taking the place of the albu-

men in food. Somatose is, therefore, a representative of those preparations which consist exclusively of certain albumoses and is able to maintain the body in a condition of nitrogenous equilibrium.

2. In combination with a diet not deficient in albumin somatose cannot always replace meat, since in the presence of a large quantity of nitrogenous elements in the additional food somatose is of itself insufficiently utilized, and also by producing diarrhea impairs the absorption of other albuminous bodies in the additional food.

3. Inasmuch as the absorption and assimilation of somatose in the intestines is materially influenced by the quality and quantity of the supplementary food, its utilization may be greatly increased by diminution of the nitrogen in the supplementary food by addition of meat to the latter. The same result is brought about by diminishing the quantity of introduced somatose.

4. If attention is paid to this point somatose is well borne by patients without after-effects. Large quantities are laxative and produce some diarrhea. Somatose is well tolerated by phthisical patients with intestinal lesions and profuse diarrhea, and frequently better than meat.

5. In certain forms of gastric trouble somatose is more suitable than other albuminous products, whether because of mechanical reasons or whether in consequence of the secretory condition of the stomach.

6. Somatose cannot be utilized for nutritive enemata.

My own experience with somatose relates to its use in the most diverse affections in which a readily absorbable albuminous food was demanded. I have employed somatose in cases in which the assimilation of food was prevented by disturbance in the alimentary canal or by diseases of other organs. It has proved an excellent nutrient and restorative in exhausting diseases and conditions of prostration due to sudden loss of strength, and in convalescence from fevers and diseases attended with nutritive disturbances. According

to the results obtained by Hildebrandt, a portion of the somatose solution is directly absorbed in the stomach, while the rest of the dissolved albuminous particles remain only for a short time in the intestines before being absorbed, producing no disturbances and furnish no pabulum to the bacteria present in the intestinal canal.

Inasmuch as somatose is capable of taking the place of the greatest portion of the albumens required by the organism, its employment in cholera infantum seemed indicated. I therefore made use of it in 12 cases of cholera infantum in infants from four months to 1 and a half years old. After thorough lavage of the stomach one to two tablespoonfuls of a solution of somatose, one teaspoonful in a cupful of warm water, were administered every hour. In four cases the vomiting ceased as early as the first day. In six cases it ceased completely on the second day, while two children, 4 and 5 months old, died of exhaustion during the first day of treatment. The other 10 patients completely recovered; as early as the second or third day there was an improvement of the general condition, although in all cases marked symptoms of collapse had been present. The stools were favorably influenced by the administration of somatose, becoming less frequent and less fluid. On the fourth or fifth day it was found possible to return to the customary feeding with cow's milk, which now was well tolerated. The most interesting feature of this treatment was the fact that after the administration of somatose solution in eight cases a cessation of the previously rapid loss of weight was observed, and that after resuming the use of cow's milk the children regained their weight in a remarkably rapid manner. In only two cases was there still a slight deficit in weight during the use of somatose, as shown by daily weighing. Inasmuch as the further treatment consisted only in two daily baths in water of 30 degrees of 10 minutes' duration, followed by packing and woolen blankets for half an hour, and as no medical treatment

was resorted to, these favorable results must be ascribed to the somatose which acted here both as a dietetic and stimulating remedy. I employed somatose with the same favorable results in several cases of acute gastric catarrh with vomiting in infants. I further resorted to the use of somatose in several cases of chronic gastric catarrh, and in a case of marked dilatation in consequence of pyloric cancer. The preparation was well tolerated by all patients in contrast to the peptones previously used. In the patients with chronic gastric catarrh somatose effected not only an improvement of the general health and gastric pains, but also removed the existing anorexia, so that a vigorous appetite ensued together with a gain in bodily weight. By the administration of larger doses it was also found possible to remove the obstinate constipation and to completely regulate the bowels. In a case of gastric dilatation due to pyloric stenosis, in which the greater curvature of the stomach reached below the umbilicus, the patient suffered from complete anorexia and muscular insufficiency of the stomach, so that the greater portion of the ingested food was again vomited. After the administration of somatose for several days the vomiting ceased, and the motor functions were restored to such an extent that after about 14 days other fluid food could be ingested without provoking vomiting. The pains were also alleviated, and the general condition improved in a very favorable manner.

In the case of a very nervous woman suffering from gastralgia of hysterical origin, together with anorexia, who manifested a repugnance towards all meat and peptone preparations which she had taken during her previous attacks, somatose was administered without her knowledge in milk, and not only diminished the irritability of the gastric mucous membrane, but also produced a vigorous appetite and shortened the period of convalescence which under other circumstances would have lasted some time.

In two children suffering from typhoid fever, who vomited all fluid

food, milk, meat, broths, etc., and in consequence had rapidly emaciated, somatose was administered, dissolved in hot water, and was well relished. The irritability of the gastric mucous membrane disappeared in the course of five or six days, so that other kinds of fluid food were tolerated. In conjunction with this there was a distinct improvement of the general health, and the abdominal pains, which in one case were severe, were ameliorated, while the stools became less frequent. Convalescence in both children was remarkably rapid.

I also used somatose in cases of children who were unable to retain any food on account of persistent coughing. Among them were a number of children suffering from severe attacks of whooping cough and marked vomiting, attended with great exhaustion, in consequence of the inability to take sufficient food. Somatose, unlike other fluids, was not vomited, and by its aid it was found possible not only to prevent any further loss of weight, but also to bring about a favorable state of nutrition. Two children, 4 and 6 years of age, whom I weighed daily, gained in weight one and one and a half pounds respectively in the course of 14 days. Somatose acted in the same favorable manner in two cases of advanced pulmonary and intestinal tuberculosis, in which, besides the frequent diarrheal attacks, there was an irritating cough which frequently caused vomiting of food. Somatose dissolved in milk was never vomited, and during its administration there was an increase in nutrition of the greatly exhausted patient. The violent abdominal pains became more endurable and the diarrhea was relieved.

As a restorative, somatose proved very serviceable in convalescence from febrile and exhausting diseases, such as typhoid fever, pneumonia, the puerperal state in several cases of hemorrhages, and in one case of ulcer of the stomach, after a loss of blood of 1 1-2 litres. In all cases somatose was well borne, being administered in the most varied solvents, such as milk, meat broths,

milk soups, gruels, cocoa, etc., and in every case it exhibited a remarkably favorable influence upon the general health, producing a gain in strength and weight.

Especially noteworthy was the remarkably favorable influence of somatose in cases of heart disease, and upon the secretion of the mammary gland in nursing woman. Whether this was attributable to a direct nutrition of the heart or a direct action upon the mammary gland, or whether these beneficial effects upon both organs were due indirectly to an improvement of the general state of nutrition, I am unable to decide. In several cases of weakness of the heart I was able to observe after administration of somatose a distinct increase of the pulse tension, and in two patients suffering from swelling of the extremities, in consequence of compensatory disturbance of the heart, a considerable diminution of the edema occurred, which could only have been effected through an increase of the power of the heart.

In cases of nursing women with decreased secretion of milk, who suffered from pains in the back and tension of the breasts—signs of drying up of the secretion—I was able by administration of somatose, one teaspoonful three or four times daily, to cause disappearance of the pains and increase of the secretion, which again became diminished after discontinuing the preparation. In this way I succeeded in several instances in prolonging the period of wet-nursing.

As regards the subcutaneous employment of somatose and nutrition with somatose mother's milk, I have had no personal experience.

On the ground of my observations I would offer the following conclusions: 1. Somatose is an odorless and almost completely tasteless albumoses preparation, which is well relished by children and adults, and can be administered in the most diverse solvents, even without knowledge of the patient. 2. Somatose is well tolerated by the diseased alimentary canal. 3. When administered in frequent small doses during the day somatose is completely utilized,

producing a gain in strength and weight, and improvement in the general health. 4. Somatose does not give rise to nausea or diarrhea, although single large doses act slightly laxative. 5. In view of its nutritive value somatose is the cheapest meat preparation. 6. With the aid of somatose it is possible to tide the patients over certain critical periods since it is capable of acting for long periods as a complete substitute for nitrogenous food. It may, therefore, be employed with good results in all diseases attended with fever and marked emaciation, and in acute conditions of exhaustion due to loss of blood, as well as in diseases of the digestive tract where we desire to avoid the risk of taxing the stomach and intestines with other foods, and of producing gastric irritation. 7. Somatose acts very favorably upon the heart and circulation. 8. Somatose produces an increase of secretion of milk in nursing women.

APPENDIX.

Since writing this article two papers have appeared which confirm the favorable results of other observers.

Dr. P. J. Eichhoff (Berlin Klin. Wochenschr., No. 46, 1894) employed somatose as a nutrient, in addition to the ordinary diet in that form of cachexia which not infrequently attends cases of severe syphilis. He administered it in the following manner: One teaspoonful of somatose was dissolved in warm water, then added to one-third litre of milk, and this quantity was given morning, noon and evening, in addition to the ordinary diet. A case is cited by Eichhoff to illustrate the effects of somatose in syphilitic cachexia. The patient had been under treatment for 10 years for severe tertiary cutaneous syphilis, and complained of severe pains and sleeplessness. During an inunction cure he developed mercurial stomitis which greatly reduced his health and necessitated discontinuance of the treatment. Somatose was given in the above described manner and the treatment with mercurials resumed, which was now well tolerated. Remarkable improvement was soon manifested.

The patient felt much stronger and his former wretched condition soon gave place to a healthy appearance. During the four weeks that somatose was given a gain of about 10 pounds in weight was noted, an increase of three pounds taking place during the last eight days.

Reichmann, of Elberfeld, reports his results with somatose in phthisis, pleuritis with marked loss of strength, chlorosis, anti-dyspeptic disturbances of various kinds with marked vomiting. Somatose was always well borne and no gastric or intestinal disturbances or nausea were observed. In some cases a remarkable increase in weight was noted within a short time, one patient with incipient phthisis gaining 4 1-2 kilo within three weeks. Somatose milk was also administered to a child 8 weeks old suffering from vomiting and diarrhea. The stools became normal and the vomiting diminished. During administration of somatose milk for 10 weeks the child gained 300 grammes in weight. Reichmann also recommends the use of somatose chocolate and biscuit. ("Practical Notes on the Use of Somatose," Deutsch. Med. Wochenschrift, No. 47.)

TWO CASES OF LA GRIPPE OF PSEUDO-PHTHISICAL FORM.

(Chatin and Collet in Lyon Med., 1894, No. 41.) These writers observed two cases of influenza with pulmonary complications which they were forced to regard as phthisis from the physical examination. There existed dullness on percussion over the apices, sonorous rales, cavernous respiratory murmur, copious, purulent, nummular sputa. In one case the diagnosis of phthisis was given up, because there was no fever and no loss of weight, and especially because no tubercle bacilli were found in the sputum. The other case proved fatal, and the autopsy showed edema of the lungs, splenization at the apices, no sign of tuberculosis, no bronchopneumonia, no caseous foci. Similar observations have been made previously.—Centralblatt für innere Medicin.

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THE RETAIL MILK TRADE.

As the summer months approach the question of milk in infant feeding becomes rife. In most of our large cities there are dealers who take every precaution in the supply of milk served their customers, but the ordinary milkman takes no precautions whatever. A few send a special can to each family. Those, however, who are curious in such matters may see that the little cans are sometimes filled round the corner from the main churn which ornaments the centre of the milk cart. As regards the great mass of the milk supply, however, there is not even a pretense of doing anything but ladling it out from an open can in the public street. Although they may be washed and steamed, the cans themselves are far from tempting; the men who distribute the milk may have to push their arms down into the big cans to get the milk to fill the little ones, and they have to pour the milk from can to can, manipulating it so as to minimize, as far

as may be, the unfair amount of mud which the last customer would otherwise receive. These processes are carried on in the open street. Everyone knows the cloud of dried manure which in a city wind constitutes dust, and in the midst of which the open-can milk trade is carried on. Added to all this we have the danger of the milkman being a carrier of infection. It seems that the only way out of the dangers of the retail milk trade at present practicable lies in the distribution of milk in sealed bottles. It would carry far better, for in a full bottle it would not get appreciably churned; it would keep better, for the bottle being washed and boiled by aid of proper appliances would be far cleaner in a biological sense than the average milk bowl becomes when washed by the average cook; and the milk would not only be protected from adulteration and infection by the milkman, but it would be far less exposed to evil influences and bad odors in the kitchen and the larder. Moreover, it is no new thing.

THE BOILING POINT OF MILK.

Dr. Edmunds, writing in the British Medical Journal, makes the following observations on this subject: Referring to the temperature at which typhoid bacilli are killed, a correspondent assumes that milk boils at 180 to 190 degrees F. This is a mistake which needs correction. Milk boils at a temperature higher than that of water, and it is well known that boiling milk inflicts a much more serious scald than boiling water. The point at which milk boils will vary half a degree or more, according to the amount of its saline and other non-aqueous constituents, but I find that a fair sample of milk, taken from my own kitchen, boils at 213.5 degrees F. when tested with a standard chemical thermometer. I have always advised that milk boiled for one minute is made safe by the killing of any infective germs which it might have contained. The butter contained in the milk does not seem to raise its boiling point, but it is well known

that butter and other fats and fixed oils boil at a very much higher temperature, and that boiling fixed oils destroy the skin as effectually as melted lead. In the manufacture of tin plate—that is, sheet iron plated with tin—the tin is kept melted under melted tallow, and the clean sheet iron is tinned by being passed through this bath in molten tin. Fixed oils may be heated to about 500 degrees F. without undergoing material change, but at about 600 degrees F. they begin to boil, owing to the evolution of gases, which are set free as a process of destructive distillation. It is generally held that the typhoid infection of milk is due to contaminated water used for washing the milk vessels or for augmenting the bulk of the milk by fraudulent additions. My own opinion is that an escape of fecal matter from the cow while being milked often falls into the milk-pail, and that this is generally the real cause of typhoid infection in milk. I have actually seen this to occur when inspecting dairies and examining suspected cows, and I am perfectly sure that it often takes place. The polluted water theory seems to me to be far-fetched and inadequate.

CONSUMPTION AND MARRIAGE.

The Medical Press of April 10, 1895, gives an interesting editorial concerning this important subject bearing on the advisability of inter-marriage of consumptives:

The question as to the responsibilities incurred by the marriage of persons having a history of hereditary phthisis has lately been forced upon the attention of the public by a breach of promise action in the law courts. Into the merits of that particular case we do not propose to enter, but at the same time a brief review of some of the broader aspects of the situation can hardly fail to be of interest to medical readers. One of the points advanced in the recent trial was the distinction between acquired and inherited phthisis. No doubt there is a considerable difference betwixt the two con-

ditions. In the one case the phthisis supervenes on chronic bronchitis, emphysema, or other long-continued inflammatory lung trouble, and may be spoken of as "accidental." Still, the fact of the occurrence of such a complication is in itself strongly suggestive of predisposition, which might be revealed by a careful study of ancestral and collateral family history. In the second case, that of inherited phthisis, we have to deal with a disease in which heredity is a strongly marked and essential feature. Dr. Thompson found that out of 3000 consecutive cases among males, taken from the Brompton Hospital Records, 36 per cent. had a family history of phthisis, while out of a similar number of female cases 58 per cent. had such a history. Whatever the scientific explanation of the fact may be, there can be no doubt whatever as to the importance of hereditary predisposition in the determination of tubercular disease. In any scheme for the stamping out of phthisis the question of the marriage of individuals springing from infected stock must occupy a prominent position. It is a mere commonplace of every-day conversation to say that people who suffer from syphilis, consumption, insanity or other inherited disease have no business to marry. Nay, many philosophers go much further than that, and hold that the State should step in and forbid such marriages altogether. Without indorsing so extreme a view it may be remarked that the State is so far directly concerned that it has to provide for the degenerate offspring of such marriages. The modern view of tubercular disease, the curse of northern climates, is that it is a preventable condition. Having arrived at that conclusion, the next nut for the sanitarian to crack is presented in the pregnant query, "If preventable, why not prevent?" Certainly the proposition that marriages between persons of phthisical history should be prevented by law has never yet entered into the sphere of practical politics. It is quite possible that with more extended views as to the responsibility of the individual to society he

may one day be forbidden to bring diseased offspring into the community. In the case lately brought before the law Courts it is somewhat unfortunate that the issues were obscured by personal matters, so that no satisfactory legal opinion could be gained as to how far the concealment or misrepresentation of family history as regards consumption might be held to warrant a breach of contract to marry. In commenting upon the case some of the newspapers have said that the defendant, to have been within the law, should have made his promise of marriage conditional upon the absence of phthisis in the lady's family. We doubt if such a course would be found possible even to the most case-hardened and unemotional lawyer. One thing is certain, namely, that the future preventive treatment of phthisis, no less than of insanity, must to a great extent depend upon the restriction of the marriage of persons predisposed to those conditions. Before any practical step can be taken in such a direction, however, the principle will have to be accepted and indorsed by the administration of our law. It is probable that a few generations hence our social philosophy will have so far advanced as to make the existence of any serious hereditary taint perfectly good ground for breaking off a contract to marry, but as things go, it is not impossible that before that time both phthisis and actions for breach of promise of marriage will have vanished off the face of the earth.

TANNIN IN PHTHISIS.

The Medical Times and Hospital Gazette speaks thus favorably of tannin in consumption: "French physicians have for some years used tannin, with or without sulphate of quinine, in the treatment of acute phthisis, and they claim for it, apparently with justice, very remarkable results in the diminution of fever and the removal of symptoms. It is a physiological fact, to which attention has not been sufficiently drawn, that rabbits into which tannin has been injected are much more

refractory to injections of tuberculin than animals in which such injections have not been made. The treatment at present may be termed empirical, but it is worthy of note that such shrewd observers as our French brethren are appear to consider that the treatment is most efficacious. They recommend that tannin should be given to the extent of two or three grammes a day in divided doses, and Professor Potain, who has used more than twice this dose for certain patients at the Charite Hospital, considers that such a dose is in most instances too large, as it tends to depress the strength of the patient. The remedy is comparatively little used in this country in these cases, and it certainly merits a fair trial. By a similarity of argument, it should also be beneficial in attacks of acute congestion affecting other organs of the body."

MEDICAL MEN AND TEMPERANCE.

There is in all probability no class of men who are thrown into closer everyday contact with the evils of intemperance than members of the medical profession. In the course of hospital and private practice they have before them constant object lessons of the havoc played in all ranks of society by the demon drink. It is not a little curious, in view of these facts, that their education as to the effects of alcohol upon the human system is not aided by specialized study in their student days. A dozen lectures on the subject in the course of each session would suffice to cover most of the ground, and the medical practitioner would then go out into the world with his eyes open to some of the conditions which he will have to encounter in actual practice. Speaking broadly, most medical men advocate temperance, but only comparatively few are strenuous supporters of total abstinence. There can be no doubt that a great responsibility rests with the profession in the matter of alcohol. Wine or spirit forms a pleasant and convenient stimulant in many mor-

bid states, but a patient is apt to continue their use long after the occasion has passed away. Then, again, much alcohol is administered in the medicine itself. Supposing a mixture to contain two or three drachms of various tinctures, then the doctor is actually dosing his patient with spirits and water, of a strength almost equal to that of ordinary grog. Without advocating extreme views, we venture to assert that the profession generally is not sufficiently alive to its grave responsibilities in the direct or indirect prescribing of alcohol.

DR. REEVES VINDICATED.

Dr. James E. Reeves, of Chattanooga, Tenn., is to be congratulated upon the successful issue of his fight against the nostrum termed "the Amick cure for consumption."

Correspondence.

PERITONITIS.

Editor of "Times and Register."—Physicians in Seattle as elsewhere in this country are still treating abdominal inflammation by full doses of opium and morphine, notwithstanding the now well-established fact that this drug promotes septicemia. It seems very strange that this old practice is so preserved and fostered in this antiseptic age. The practice must be of comparatively modern origin, too, for Cullen in his *Materia Medica*, published in 1789, in Edinburgh, distinctly advises against the employment of opium in the treatment of inflammation, "except in the suppurating state of inflammation, and as soon as a determination to this has taken place we suppose the phlogistic action of the system to be very much taken off, and, therefore, that the pain of suppuration may be safely relieved by opium, as we are at the same time persuaded that opium promotes the process of suppuration." And careful modern observers know that Cullen was right. Yours truly,

A. DE VOE.

Electro-Therapeutics.

IN CHARGE OF
DR. S. H. MONELL, New York.

DERMATO-NEUROSES AND THEIR TREATMENT.

Continuous and interrupted electrical currents have been recommended in the treatment of trophic ulcers by many authors. Others have employed the continuous current in the treatment of morphea and vitiligo with some success. Beard and others have recommended the continuous current in the treatment of a large number of cutaneous affections, particularly in the treatment of eczemas. Like these authors, I have obtained variable results in the treatment by the continuous current of the dermatoneuroses, of which I have spoken above. We must here recall particularly that Silva Arango, of Rio Janeiro, has obtained very remarkable and very encouraging results in the treatment of elephantiasis by the continuous current.

By electrolysis I have cured many cases of cutaneous pruritus, of vulvar and of anal pruritus, which had been absolutely rebellious to all previous treatment. This method, however, is very painful and is applicable only to very localized pruritus. I have been obliged to abandon the use of the Faradic brush, which had only given me very irregular results. During the last two years I have employed the induced current with the most unexpected results, in about 25 cases of localized or general pruritus, the more tenacious of which had resisted all treatment. A good number of cases of the extremities vulva and anus were cured after a variable number of applications. The eczematous or lichenoid condition secondary to the pruritus disappeared. In a certain number of cases the pruritus was relieved considerably, but did not entirely disappear. In some cases the pruritus resisted all treatment.

I have obtained analogous effects in the treatment of generalized pruritus, but the results have not been so good as in localized cases.

The following is the method of em-

ploying the induced current: The patient is connected with one pole of a powerful static machine and insulated. A metallic point connected with the other pole is then held at about 0.10 to 0.15 cent. from the affected area. The patient experiences a soft blowing sensation, accompanied sometimes by slight pricking feeling. The point ought to be passed slowly over the whole of the affected area. The total duration of seance should be about 12 to 15 minutes. This method is of great service in rebellious cases of cutaneous pruritus. I have also treated a large number of dermatoses by means of the induced electrical current. These include eczema, lichen, urticaria, morphea, vitiligo, local asphyx of the extremities, trophic ulcers, tropo-neurotic paladoides, etc. The results have been very inconstant, and vary from cure or relief to aggravation.—H. Leloir.

THE CURE OF STRABISMUS BY ELECTRICITY.

Dr. W. L. Capell, of Omaha, recently reports the correction of strabismus by a simple and painless method. "It consists in the application of the negative pole of a galvanic battery with an E. M. F. of from three to six cells to the short rectus muscle and the positive pole to the long rectus muscle, causing the strengthening of the weak muscle and correcting the deformity. The doctor cites two cases, one of which he reports cured after six months' treatment and the other improving one-half in less than 30 days.

ELECTRIC SAFE PROTECTION.

In the Electrical Review for March 20, Dr. G. P. Hachenberg writes at length of a plan to make safes burglar-proof by electric alarm wires running to a watchman's bell. The author appears to consider this a new suggestion and he illustrates the idea with a cut. A wooden box can be made burglar-proof, he

thinks. For the benefit of any readers who may be interested in this "new" device to defeat the burglariously-inclined I would say that in the jewelry centres of our large cities the idea is systematically developed on a very extensive scale. For at least 20 years Maiden Lane, New York, has been protected in this way. After the safe is locked a casing of light wood and paste-board is placed around it. The panels of the case are wired, signals are arranged and a central office watchman's service is organized to protect every subscriber.

TESLA AND HIS WORK.

Probably most physicians who employ electricity in medical practice have heard of Nichola Tesla, whose laboratory and apparatus were destroyed by fire on March 13. Although a young man he has excited great interest throughout the world both in his work and in himself. As many who have read of his loss would like to know how he himself regards it, the following portion of a recent interview is repeated here:

"I was engaged on four main lines of work and investigation. One of these was the oscillator that combines the steam engine and dynamo. This I regard as a practically perfected machine. Another was improved methods of electric lighting. Another was the transmission of intelligence any distance without wires. A fourth, which is an ever-present problem with every thinking electrician, touches the nature of electricity. Each of these questions and many others I shall follow up."

If Mr. Tesla is not more of a visionary dreamer than a practical electrician, he bids fair to make the most sensational reputation yet made by any inventor with the possible exception of Edison. The poetic temperament is strongly marked in Tesla, and he may not succeed in materializing all his fancies. If he fails to produce artificial sunlight and to telegraph without wires we would be pleased to have him devote some of his undoubted genius to the improvement of electro-medical apparatus.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

ANOTHER CONSUMPTION "CURE."

The United States Consul at Berlin has sent home to Washington an account of an alleged cure for consumption, discovered by Dr. Louis Waldstein, of this city. The text of the Consul's letter is printed elsewhere. This text shows that the ingenious inventor has not yet discovered a cure, but only a theory of a cure. The theory is this:

"By successive injections of minute doses of pilocarpine in the veins he arrives at a gradual stimulation of the lymphatic system. That system increases the white corpuscles in the blood, which corpuscles, as is well established through Metchnikoff, of the Pasteur Institute, of Paris; Hankin, of Cambridge, and Buchner, of Munich, in some way not generally agreed upon, do certainly overcome and cause to be harmless those poisonous particles in the blood which produce disease. Metchnikoff thinks that the microbes which destroy the red corpuscles of the blood are swallowed and englobed alive by the white corpuscles. Hankin and Buchner think that the white corpuscles merely absorb the dead microbes, and, therefore, calls the white corpuscles 'alexine,' or protective particles. Dr. Waldstein goes to the fountain whence these white corpuscles spring, and tries to enliven its action and productiveness when, through disease, these health-giving particles have become too few to keep the blood in proper order."

Dr. Waldstein has not yet tried this theory in pulmonary tuberculosis, but in one case of lupus of the hand the results are spoken of as extraordinary.

We cannot but feel the strongest skepticism of the alleged discovery, and it is unfortunate that, if there is merit in it, the matter should be made a subject of governmental correspondence and newspaper adver-

tisement on the strength of, as it appears, a single case.

Lupus runs a very curious course, and we all recall the occasional subsidence of the disease under injections of tuberculin and cantharidin, as well as in thyroid feeding.

The basis of the theory itself is weak, for we know that in those conditions in which the white blood-cells are excessively numerous, such as leukemia, the patients are ill and show no increase in vital resistance.

Our consuls should find better employment than in advertising new remedies and in indorsing sensational therapeutic theories.—New York Medical Journal.

DISINFECTION OF BUTCHERS' SHOPS.

M. Miquel and M. Crinon, after a series of experiments, have ascertained that an aqueous solution of zinc chloride of 3.5 per cent. prevents the putrid fermentation of bones and debris in butchers' shops and slaughter-houses. It also prevents the transmission of septic bacteria existing in the meat to another organism than flies. This solution removes all smell and allows the material to be used for industrial purposes. M. Nocard considers a two per cent. solution efficacious.—New York Medical Record.

SYPHILIS IN JAPAN.

According to the recent report of the Japanese Sanitary Bureau, Japan has 1,401,226 prostitutes, of whom but 44,700 are syphilitic. The prostitute is subject to inspection and license in the Island Empire. The proportion of prostitutes to the population is nearly that of London, according to the figures of Jeannel, which are approximative and rather under than over the mark. The syphilis rate is less than one-tenth as great in Japan, where it must be remembered official medicine is on a level with that of Europe, and official inspection is not fettered by personal liberty claims. As prostitution in Japan does not debar from marriage, since citizens even of the middle class take their wives from the tea-houses, there is possibly wide-

spread syphilization which would increase immunity to the disease.—New York Medical Record.

THE OUTLOOK FOR CHOLERA IN EUROPE.

The official reports indicate that cholera will prevail in Europe during the coming warm season as it did last year. The threatening sources of infection are Russia, Galicia and Turkey, where the disease has been present throughout the winter. There has been no cholera in Belgium since the last week of November; three cases were reported in Germany in the last three weeks of December, and seven in Holland on December 8. The disease appears to have been suppressed during the cold weather in all parts of Western Europe which were infected last summer and fall, Galicia excepted. In this province of Austria-Hungary, to which cholera was brought from the adjoining parts of Russia, and where the number of deaths last year was very large, the disease has prevailed throughout the cold season, the official reports showing 877 cases and 450 deaths in the period between December 3 and February 17. At last accounts there was cholera in 31 governments or provinces of Russia.—New York Medical Record.

THE TREATMENT OF OBESITY.

Extensive trials have been made in France with thyroid extract in the treatment of obesity, and cases are recorded in which it would seem that very marked results followed the employment of this remedy, either by subcutaneous injection or by the mouth. The dose usually given amounted to about 15 1-2 minims of the thyroid juice daily, and in three months, in one instance, the patient's weight fell nearly 40 pounds. As soon as the treatment was discontinued the loss of flesh also ceased, and when the thyroid extract was resumed a daily loss of flesh also ceased, and when the thyroid extract was resumed a daily loss of flesh again occurred. In other cases, however,

the treatment was followed by no marked results, and the conclusion therefore, is obvious—either that the cause of the obesity must have been different, or that the thyroid extract may have been impure. On the other hand, it has been conclusively proved, in this country, that the use of the remedy may be followed by somewhat dangerous nerve symptoms, and that, in fact, the thyroid extract, powerful as it has proved to be in the treatment of various diseases hitherto considered to be difficult of cure, may be attended by results of an alarming character; and there is, therefore, reason to feel that firms which prepare this remedy would be well advised to dispense it only under medical direction.—Medical T. and H. G.

DIETETIC TREATMENT OF PHTHISIS.

Never take cold mixtures if they can possibly be avoided.

Food should be taken at least six times in the twenty-four hours; light repasts between the meals and on retiring.

Do not eat when suffering from bodily or mental fatigue or nervous excitement.

Take a nap, or at least lie down for twenty minutes, before the mid-day and evening meals.

Starches and sugars should be avoided, as well as all indigestible articles of diet.

So far as possible each meal should consist of articles requiring about the same time to digest.

Only eat as much as can be easily and fully digested in the time allowed.

As long as possible, systematic exercise should be taken to favor assimilation and excretion; when this is impossible, massage or passive exercise should be undergone.

The food should always be nicely prepared and daintily served—made inviting in every way.

The following diet sheet is suggested for the early stage: On awakening—Eight ounces of equal parts of milk and seltzer, taken slowly through half an hour. Breakfast—

Oatmeal and cracked wheat with a little sugar and abundance of cream; rare steak or loin chop with fat; soft boiled or poached egg; cream toast; half pint of milk and a small cup of coffee. Early lunch—Half pint of milk or small teacup of squeezed beef juice with stale bread. Mid-day meal—Fish; broiled or stewed chicken; scraped meat ball; stale bread and plenty of butter; baked apples and cream, and two glasses of milk. Afternoon lunch—Bottle of Koumyss; raw scraped-beef sandwich, or goblet of milk. Dinner—Substantial meat or fish soup; rare roast beef or mutton; game; slice of stale bread; spinach; cauliflower; fresh vegetables in season (sparingly).—Practitioner.

AN INNOXIOUS MICROBE.

M. Charrin has ascertained the curious fact that the milk of wet nurses, who themselves are in the enjoyment of the rudest health, and whose charges do not cease to thrive and put on weight, may contain in considerable numbers the terrible white staphylococcus which some authorities would have us believe is so deadly. This discovery, which was proclaimed at a meeting of the Societe de Biologie in Paris, would seem to strike a severe blow against the modern germ theory of disease. In this connection, a writer in *L'Union Medicale* makes the following suggestive observation: "In reality, as regards the breast as well as the bronchi, the intestines, etc., if frequently the pathogenic agent makes its entry from without, at times it pre-exists within the system, awaiting some occasional cause, such as traumatism, a febrile affection, or other, in order to make its presence manifest by swarming. What is the nature of this occasional cause? Calling it traumatism, etc., does not help towards the elucidation of the knotty point. The staphylococci at one moment are beneficial and wholesome towards their human host, at another they become virulently noxious. What is the real cause of this change of front? It is not too much to say that we know nothing whatever about it.—*Provincial Medical Journal*.

Therapeutics.

IN CHARGE OF
DR. LOUIS LEWIS, Philadelphia.

THE THERAPEUTIC EFFECTS OF BETA-NAPHTHOL BIS- MUTH.

Dr. Hugo Engel, in the *New York Medical Journal*, of March 30, gives an exhaustive account of his experience with this drug, with the citation of several cases. His conclusions are that beta-naphthol bismuth is a very efficient drug in those conditions where fomentation is going on in the stomach and intestines with dangers of auto-infection. He considers it especially valuable in diseases due to the presence of infectious material in the alimentary canal both in infants and adults.

ANTITOXINE IN DIPHTHERIA.

Drs. White and Fischer, in the *New York Medical Journal*, March 30, refer to the admirable results they have obtained in the use of Aronson's heilserum in diphtheria. Children receiving injections in the evening would be surprisingly well the next morning.

THE ANTITOXIN TREATMENT ABROAD.

The German Government has issued an order that before antitoxin can be offered for sale in the German Empire it must be submitted to the Institute of Infectious Diseases at Berlin. After examination the Institute will mark with a special stamp the date and number of the sample on the bottle. This regulation came into force on April 1. A measure similar to that passed by the German Government is now before the French Legislature. The French Minister of War has decided that a supply of antitoxin for use in military hospitals shall be kept ready at the headquarters of the medical staff of each army corps. Reports of all cases in which the serum is used must be sent in to the proper authorities within 15 days.

THE INFLUENCE OF ERYSIPELAS ON THE COURSE AND TERMINATION OF ASIATIC CHOLERA.

N. Blagowjeschtschenski (Medicinskoje Obosrenje, 1854, No. 15), during the cholera epidemic superintended the bacteriologico-clinical station opened in Merv (in the trans-Caspian province), and observed here, among 300 cases of cholera in hospital, with a mortality of 52 per cent., the coincidence of this disease with erysipelas four times. In these cases, in all of which the diagnosis was confirmed bacteriologically, the erysipelas was first manifested during the algid stage on the third or fourth day of the disease. In every case the appearance of the eruption influenced favorably the course of the cholera. The low temperature yielded at once to the high temperature curve of erysipelas. Diarrhea and cramps ceased immediately and the general condition of the patient became markedly improved within twenty-four hours. The languor disappeared, urine was excreted, appetite and sleep returned. The course of the erysipelas was also relatively light and the eruption not extensive. In conclusion, he writes: "If one can assume that, under the influence of the toxin producing cholera, the heat centre in the organism is paralyzed, in the same way it can be accepted that this centre under the influence of the erysipelas toxin regains its irritability.—Centralblatt für innere Medizin.

DIET IN ULCER OF THE STOMACH.

Food should be chosen that is digested in the intestines, such as milk, eggs, starches, fruits and green vegetables; farinaceous substances and eggs should constitute the chief diet. Lentils are preferable to potatoes and beans; among green vegetables, salads are excellent; green peas, turnips and carrots should be mashed before eating. Light puddings are easily digested, especially if they contain eggs.—Dr. Roux, Journal d'Hygiene.

Miscellany.

EXPULSION FOR ADVERTISING.

A sensation was caused in medical circles in Georgia by the expulsion from the Georgia Medical Association of Dr. W. L. Bullard, of Columbus, one of the leading eye and throat specialists of this section, on the ground that he had lost standing in his profession by advertising in a newspaper. The Association is in convention here and expelled him without a dissenting vote.

The Buffalo Medical and Surgical Journal celebrates its fiftieth anniversary by increasing its number of pages from 64 to 80 of reading matter.

PHENOMENAL PREMATURE MENSTRUATION.

BY D. L. PEEPLES, M. D.
(Navasota, Tex.)

Mrs. W. B., a primipara, was delivered with the forceps of a girl on January 25, 1895, at noon. Five days later, or at the age of five days, January 30, 1895, at 2 P. M., the child began to menstruate, which caused much parental alarm, resulting in a second summons for me. Being absent I failed to arrive until 6 P. M. On my arrival the nurse informed me that she had cleansed and powdered the parts well an hour previously. On examination I discovered the vaginal canal fairly well filled (in my mind) with undoubted menstrual blood, as it was traceable just as high up as I possibly could determine, without a particle of abrasion, irritation, injury or inflammation along the vaginal canal whatever. Cessation of menstruation occurred some time during the following night. The breast and genital organs were remarkably well developed at birth, and created some comment among those present, also vivid impressions upon my own mind. Should this little phenomenon continue to have periodical catamenia I will report the same.—N. Y. Medical Journal.

AN ELECTROSTATIC PAIR.

(From Hardware.)

He was the gallant engineer
Of a giant dynamo;
She sang to the wires the whole day long
With a chorus of "Hello!"

He loved this telephonic maid,
Till his heart's vibrating plate
Was magnetized and polarized
At a milliamperic rate.

His love he well expressed in ohms,
And amperes, or even in volts;
In voltaic phrases and dynamo figures,
Or currents, arc lights, and bolts.

Said he: "By the great broken circuit,
Or more, by the Ruhmkorff coil,
Your negative answers will drive me
To some subway under the soil."

"Not a spark of inductive affection,
Not a positive 'Yes' have I had;
I'm afraid the wires have grounded
In favor of some other lad."

Then regret, like a galvanometer,
Or an astatic needle, it smote her,
And she said: "Of love I have ions
As strong as an Edison motor."

So he opened the circuit and clasped her
In arm-ature, and held her there;
And she was the belle electric
Of this thermo-electric pair.

We are pleased to advise our readers that the firm of H. K. Mulford Company, Philadelphia and Chicago, are now in position to fill orders for a reliable and thoroughly standard article of diphtheria antitoxine serum.

Early in November, 1894, the firm of Mulford Company, in order to guarantee their patrons and the medical profession of America a thoroughly reliable diphtheria antitoxine serum, and at the earnest solicitation of many of the leading consultants established a biological department for the production of antitoxine and allied products, at 3907-11 Egglesfield street, Philadelphia. This laboratory is equipped without regard to expense. It is under the direction of Dr. Joseph McFarland, lecturer on bacteriology, University of Pennsylvania.

The horses are under the direct supervision of Dr. Leonard Pearson, professor of theory and practice of veterinary medicine, University of Pennsylvania.

The standardizing of their antitoxine is not only carried out in their own laboratory, but is also confirmed by department of hygiene, Uni-

versity of Pennsylvania, each package being dated and stamped with its strength expressed in immunity units

Messrs. Mulford Company will be pleased to have the medical profession inspect their Biological Laboratory on the first Tuesday of each month, from 3 to 5.30 P. M., or at other times, by request, cards being issued from their office on application.

Not only is the enterprise of this firm to be commended, but the efforts they have made to place this article above a commercial product, in having their product tested by disinterested and reliable authorities, protects the profession and speaks well for the confidence which the firm has in their preparation.

Wayside Notes.

By E. B. Sangree, M. D., Philadelphia.

It is interesting to observe in the average city physician's office the care with which it is so arranged that there shall be as much openness as is possibly consistent with a decent sense of security on the part of the patient. If this plan had been followed by all in years gone by there would be less falls from grace recorded, and less blackmail than is now quietly being paid.

As no other class of men is subjected to so many temptations nor has so many opportunities of moral transgression as have physicians, these owe it to themselves and to their patients that every precaution be taken to protect them not only against others, but against themselves as well.

As an illustration to this preamble I heard some time ago a singular case of a physician's fall. He had, by the way, everything that a doctor considers essential to a happy and comfortable life. In the first place he had an inherited name which would be worth 10 years of an ordinary physician's life to start with in Philadelphia. He had ability, brilliancy and a very excellent and

rapidly growing practice. The addition of a lovely and companionable wife and two children complete the picture.

The wife, however, and no doubt for some good reason, began to suspect him of undue gallantry, and in order either to confirm or allay her suspicions adopted a course of proceeding that seems almost beyond credence for its uniqueness.

She disguised herself in some way with veils, I do not know exactly how, but at any rate so successfully that her husband did not recognize her, went as a patient to his office, proceeded to use her wiles on him and he quickly succumbed. Arrangements were made to meet and take her to a certain resort a few evenings later. Just as they were about to leave this place, after spending the evening together, she revealed herself and the ensuing tableaux can better be imagined than described. On account of the children, I suppose, she remained under the same roof with him, but the romance of their wedded life was ended forever.

Unfortunately, in order to assuage his misery, he took the worst means possible, namely, drink, and by so doing simply added another injury to the first. From this time his downward course was rapid. First he lost his positions, then gradually his practice, next his house and finally his life—died a drunkard.

Prescriptions.

ADMINISTRATION OF IODINE BY THE RECTUM.

When iodine compounds cannot be taken by the mouth they may be given by enema, and the following formula is taken from *Le Journal de Medecine de Paris*:

- R. Iodide of potassium.gr. xlv.
Bromide of potassium. ...gr. xxx.
Extract of belladonna....gr. v.
Water.oz. xij.

To be divided in 20 parts, each one of which shall be added to two to four ounces of hot water at the time of the injection.

BRONCHITIS.

As an expectorant in bronchitis, terpene hydrate can be given in perles or in this pill:

- R. Terpini Hydrat., gr. iij.
Sacch. Alb.
Gum. Acaciæ q. s. ut fiat pil. j.

Or else in a mixture:

- R. Terpini Hydrat., drachms j.
Llycerini q. s., ut fiat sol.
Syrup. Tolut. ad ounces ij.

M. Sig. One teaspoonful every three hours.

A favorite cough mixture for coughs and colds, particularly after influenza, contains in each dose:

- R. Ammon. Bromid. gr. v.
Tinct. Camph. Co. mxx.
Ext. Glycyrr. Liquid. mv.
Tinct. Digitalis miiij.
Syrup. Scillæ mxv.
Syrup dr. ss.
Aquæ ad dr. ij.

OBSTINATE RINGWORM.

Dr. C. W. Cutler recommends the application of this mixture:

- R. Acidi carbolici.
Tincture iodini.
Chloralis hydrati.aa.oz. j
M. —Med. T. and H. G.

TRANSPORTATION TO THE AMERICAN MEDICAL ASSOCIATION.

Physicians desiring to attend the meeting of the American Medical Association at Baltimore, Md., May 7 to 10, will find it to their advantage to purchase tickets over the Baltimore & Ohio route.

Those from the East will enjoy the famous Blue Line expresses from New York and Philadelphia, which provide every comfort and ease known in passenger service with no extra charge for fast time.

Those from the South and West can travel over the picturesque and gain the additional advantage of passing through Washington en route to Baltimore.

In purchasing tickets over this line physicians should obtain a certificate of the purchase from the ticket agent which, when signed by Dr. Atkinson, the permanent secretary of the Association at Baltimore, will enable the owner to obtain his return ticket at one-third rates.

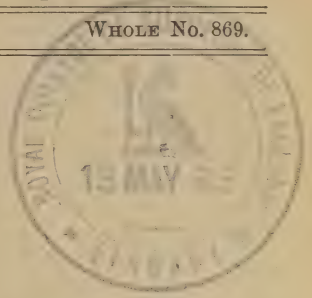
The Times and Register.

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PHILADELPHIA, MAY 4, 1895.

WHOLE No. 869.

Original.



THE VALUE OF PINAPIN IN THE TREATMENT OF CATARRH- AL DISORDERS.

BY FRANK S. PARSONS, M. D.,
Philadelphia, Pa.

(Editor of "The Times and Register.")

Pinapin is a comparatively new preparation, being obtained by expressing and concentrating the juice of the pineapple. Its reaction is acid and it is strongly anti-fermentative.

The method of its preparation is to put none but ripe pineapples in a cider machine. These are ground and the juice pressed out as in the ordinary process of making cider. The juice thus obtained is put through a process covering a period of nearly a year, during which is developed a natural alcoholic product of clear color and a sour, acid, pineapple taste.

In the manufacture of this preparation great care is first exercised in collecting the fruit during a certain season of the year and at a certain stage of ripeness. These conditions are most carefully guarded in order that the pinapin shall be most therapeutically effective.

Some years ago Senor V. Marcano discovered that the juice of the ordinary pineapple had marked properties for digesting proteid animal and vegetable substances; and, later, Professor Chittenden found that fresh pineapple was a very powerful digestant of albuminous matters. It is a well-known fact that in countries in which the pineapple is a native persons suffering from dyspepsia are often relieved by eating the ripe fruit.

The ferment from the juice of the pineapple is very active in either acid or alkaline carbonates, but more so in neutral solution. A great difficulty which has been experienced in the employment of this fruit in place of pepsin and similar ferments has been its unstability in a state of freshness. By much labor and experimentation the necessary stability has been accomplished in the preparation of pinapin by a process by which a certain per cent. of alcohol is developed corresponding to that of the light wines.

It has been found while experimenting with pinapin that its therapeutic qualities were not limited to the cure of diseased conditions of the stomach and intestinal tract, but that it was also applicable in the treatment of catarrhal conditions of the mucous membrane in other parts of the body. Thus, in cases of vaginitis where the mucous is extremely tenacious its action is very quick and satisfactory when locally applied. In nasal catarrh diluted one-half with water it has beneficial influence when sprayed onto the inflamed membrane. In tonsillitis and post-nasal catarrh I have found it exceedingly efficient as an emollient wash for the cure of these affections.

Probably its greatest therapeutic use is manifested in the treatment of chronic dyspepsia where there is more or less hypertrophy of the mucous membrane of the stomach, with excessive activity of the mucous glands. Here its action is one of stimulation renewing normal functional activity, relieving congestion, promoting absorption and materially

aiding digestion. Beside this, pinapin as an agent of direct action on proteid compounds relieves the diseased organ of unnecessary work and thus enhances that rest which is desirable in the treatment of any inflammatory trouble.

In these latter cases this preparation may be used advantageously as a table beverage in the proportion of a tablespoonful of pinapin to a glass of sweetened water, to be taken during meals.

In chronic forms of gastritis, where there is an increase of mucous formation with symptoms of oppression after eating a perverse appetite, a coated tongue, a bad taste in the mouth, and often nausea with eructations of gas, pinapin acts very efficiently. Constipation, which is usually present in these cases, disappears under treatment; headache, so common in dyspeptic disorders, is mitigated, and the depressed feeling sometimes amounting to a melancholia is markedly benefited by the use of this preparation.

In order to facilitate the obtaining of clinical results in respect to pinapin several samples of the preparation have been forwarded to various physicians of this city with the request that they report their results to me to embody in this article. Up to the present time the following observations have been received:

Observation 1. Reported by Professor W. H. Pancoast—Pinapin has been tried in several cases in my private practice and a number in the Medico-Chirurgical Hospital of Philadelphia. While the time has been limited in noting permanent effects, yet in all the cases in which I have used the preparation there has been marked benefit to digestion and a considerable toning up of the general system. Cases of dyspepsia have been much relieved and I am much pleased with the action of pinapin, and think it has a great future. The following cases have been observed by me in my private practice:

A. B., student of medicine, aged 25, has tuberculosis of thigh bone; internal medullary portion has been curetted for a distance of six inches or more and packed with sterilized

gauze. This young man, as most of these cases of tuberculosis, has dyspepsia, with considerable catarrh of the stomach. I gave him pinapin to use three times a day with the idea that it would prove of value as a tonic. Its action has been both tonic and alterative, it has benefited his digestion, promoted absorption in the intestinal canal and toned up his whole system. He has been using the remedy between two and three weeks.

H. M., female, 45 years of age; disease, cancer of the breast, involving the axillary glands, had been operated upon by various surgeons. This case was almost hopeless from the first, but she desired a secondary operation in hopes that it might prolong her life. She emerged from the effects of the anesthetic in an extremely weak condition; although she lived some two weeks after the operation she died from exhaustion, superinduced by the toxic effects of the cancerous poison. In her case I used pinapin to improve digestion and as a tonic and stimulant. She was able to take nourishment with less distress than before the use of the preparation, but her general condition was such that probably nothing would have had much effect.

S. M., also a student of medicine, aged about 26, has had functional dyspepsia for some months. He has been taking pinapin for two weeks or more, and states that he feels greatly improved in health. Nausea has disappeared and his appetite has increased since using the preparation.

Observation 2. Reported by Dr. J. R. Clausen—Mrs. L., a lady 36 years of age, suffered for years with gastrointestinal catarrh, accompanied by nausea and vomiting. At times she could scarcely retain anything on her stomach, and, as a result, was greatly prostrated. I tried the usual remedies without any satisfactory results. I was then presented with a sample of pinapin, and in three days it was evident that the preparation had marked effect on the mucous membrane of the stomach, and in less than two weeks she was able to comfortably retain almost anything

she ate. Since then she has had no return of the trouble, and is practically well.

Miss D., aged 34, suffered intensely from subacute gastritis. Previous to my being called in she had been attended by other physicians, and had tried many remedies without beneficial results. After making a careful diagnosis of the case I at once prescribed pinapin, which effected a cure in less than a week's time.

Miss W., another of my patients, suffered for days with pharyngitis which involved both tonsils and the uvula, all being in a highly congested condition. As the disease did not yield readily to other remedies I tried pinapin as a gargle. It at once relieved the congested condition of the parts and a complete cure resulted in a few days.

Observation 3. Reported by Dr. E. B. Sangree, who states that he has tried pinapin in connection with cod liver oil and finds that it materially assists in the digestion of the latter and prevents those eructations so prone to supervene upon the administration of oil.

ACUTE RETRO-BULBAR NEURITIS, FOLLOWING SCARLATINA.

BY L. C. THOMAS, M. D., OF LATROBE, PA.

Through the courtesy of the parents, I have the honor to present to you the interesting case of this child:

Sadie M—, aged 3 1-2 years, was brought to my office by her father on Thursday, January 24, 1895.

The history of the case is somewhat obscure, although I was enabled to learn that on September 11, 1894, she received a fall and sustained an incised wound of the head about one inch above centre of left supra-orbital ridge. This wound was considered trifling, and soon healed. Nothing further was thought of it until January 20, when it was noticed by her parents that when offered food she reached in an opposite direction. After an examination by her parents it was found she was en-

tirely blind. Five days later she was brought to my office. A most careful inquiry failed to elicit anything further beyond the exclusion of tubercular or specific taint.

A rigid examination showed the eyes to be externally healthy; the pupil slightly dilated and responding very sluggishly to light; in fact, under a strong bright light the contraction was scarcely perceptible, and the most searching inquiry failed to reveal any vision whatever. The ophthalmoscope showed the media clear, the veins normal, the light-streak on the arteries present, and the eye ground somewhat darker than normal, and showing a slightly granular appearance, the disk being a little paler than normal.

With this meagre history and unsatisfactory symptomatology, the diagnosis wavered between cerebral hemorrhage and acute retro-bulbar neuritis.

In a patient of more mature age there would have been a history of rapidly-failing vision, instead of the sudden failure, as related by the parents, as I learned later, from a near neighbor, that for a day or two previous to the time noted, he had noticed that when the child observed anything she had some difficulty to get her head in a position to see it; turning it first to one side, then to the other. Had this information reached me at first it would have cleared up some of the difficulty of diagnosing. In my dilemma I communicated with my honored friend and distinguished teacher, Dr. S. D. Risley, of Philadelphia, who promptly replied, favoring the diagnosis of acute retro-bulbar neuritis, stating that the case was a most interesting and extraordinary one. I at once ordered rest, with exclusion of light, from the eyes, a sharp purge and free diaphoresis with pilocarpine for the patient. On January 31 she, by my direction, was again brought to me. Another examination revealed the pupils more active to light, the fundus normal and the child beginning to distinguish lights and shadows. Mercury was given in form of the inunction of the ointment, after Sigmond, the great advocate of the in-

nuctive method. Close questioning brought out the further fact that in December last the patient had suffered from an attack of scarlatina. Had this information been elicited at the first consultation there would have been no doubt regarding the diagnosis.

On February 4 the patient showed decided improvement in vision, readily discerning light and locating it. No constitutional symptoms from the treatment being observed, a larger quantity of the drug was directed at each innunction, and also another free purge.

The ophthalmoscope showed no change since last examination. The prognosis is not necessarily grave, although it may be, as the length of time the case has been under observation has been too short to give a definite opinion, but all present symptoms point toward a favorable ending.

The time required for healing is usually from one to two months. The disease, usually, ends in complete or partial cure. In the first case the sight becomes normal again, and in the second a central scotoma generally remains. In a few cases, however, the total blindness remains permanent, so that it is impossible to state the prognosis with any degree of certainty.

The known causes of this disease are: Great chilling of the body, excessive exertions, acute infectious diseases, such as measles, scarlatina, influenza, suppression of the menses, lead poisoning, and, according to Von Graefe, angina.

The study of this case has been unusually difficult. Owing to the extreme youth of the patient, we were unable to bring out any of the subjective symptoms, which are of great diagnostic value in cases where the objective symptoms are wanting. The reaction of the pupils to light evidenced the fact that there was not complete blindness, and had she been old enough to answer intelligently, I have no doubt we could have elicited a slight perception of light, and perhaps a history of rapid failure of vision, instead of the sudden failure

as reported. With our exact knowledge of the course of the optic nerve fibres, and knowing that this disease manifests itself in the orbital division of the nerve, it is evident in this case that the inflammation affected both nerves, either primarily or by extension. In the practice of the ophthalmologist these cases are unfortunately all too frequent, and, indeed, the general practitioner often finds them confronting him. For this reason I have presumed on your time in the hope that this case and the facts developed by its study and treatment may be of value to some of you when a similar case, in which prompt measures are so essential, is met with.

March 19.—I again have the pleasure of presenting the child before you, that you may see the results of the treatment in this case. As you will notice, the child has perfect vision, being able to distinguish and locate small objects presented to her. The complete restoration of vision as achieved in this case, is not, unfortunately, always the result, but very frequently a central scotoma remains to permanently mar the field of vision. The prognosis in these cases must always be guarded. Many cases are recorded in which atrophy of the optic nerve supervened consequent on the damage done by the acute inflammatory processes, and satisfactory as the result in this case may appear, time only can demonstrate the completeness of the cure and the permanency of the result.

SURGICAL CLINIC AT HARLEM (N. Y.) HOSPITAL, MARCH 13.

BY THOMAS H. MANLEY, M. D.
Multiple Adeno-Sarcoma, Fistula in Ano
and Central Suppurative Osteomyelitis of Head of the Tibia.

Our patient, as you will observe, is a man of rather advanced age, being in his 64th year.

His general appearance and gait present many interesting and important points, well worthy of attention when we approach the subject of diagnosis and prognosis.

You will notice that he walks with an unsteady step, that he is stooped,

very much emaciated and anemic. The arcus senilis is well marked and the arteries have a hard, inelastic feel, suggestive of atheromatous changes.

We see a large growth springing up from behind the angle of the right lower jaw. It has a fairly even outline, and is movable. But its volume you notice is so great as to crowd the head over to the left and limit motion in the neck.

He comes to the hospital to have this tumor removed, and though, he says, he has been warned of the danger of an operation, he is ready to take the chance.

Now, let us have the history of the case and the present clinical picture—endeavor to determine what class of pathological formations this mass belongs to, and if circumstances point to the desirability or justification of an extirpation in this instance.

He tells us that he enjoyed his usual good health until three weeks ago. He never had specific disease nor sustained any injury of the neck. At that time, he was seized with a severe cold and had to discontinue work. He had a few pulmonary hemorrhages at that time and soon after a small fullness appeared under the jaw, near the ear. It has made rapid but painless progress. Since this commenced to grow his digestion has become so feeble that he can only assimilate liquid foods. His wife tells me that he is steadily losing strength. It is to be observed here that our patient breathes altogether through his mouth; that there is some protrusion of the right eye and we see prominence of the right superior maxillary bone extending back as far as the ear, upward to the orbit base and inward to the nostril. On examination by the mouth, we find the buccal cavity greatly encroached on by the descent through the palatine vault of a neoplasm. The sternocleidomastoid muscle seems to pass directly through the growth, and it has produced so much pressure over its site as to produce loss of sensation over all those areas supplied by the facial and anterior branches of the third and fourth cervical nerves.

We can thus present all the clinical characters of intense malignancy, and it is hardly necessary to add that we have declined to operate on him. This superficial mass, should we undertake to dislodge it, we would undoubtedly find, has very deep attachments with vital structures and in any event would entail a large blood loss; besides, to undertake its removal, while there are evidences of visceral and local osseous implication, would be quite infeasible surgery.

Our next patient is a youth of 20 years of age, who tells us that without any assignable cause he commenced to have pain in his knee joint. It would come and go, until after a time it became very severe, when medical attendance was summoned. He says he had been treated for rheumatism. Six months ago he went into hospital and was treated by local applications, without effect. He was then discharged and later entered another, remaining there two months, leaving no better than he entered.

He is now almost constantly suffering from a severe pain in his knee, which gives him great distress when he attempts to walk. The soft parts in the affected limb are much wasted, the circulation is feeble and the temperature of the foot is much lower than on the sound side.

There seems to be but slight constitutional disturbances, no elevation of temperature, though the pulse is feeble and his appetite is poor. On examination of the limb, we will at once notice that there is no apparent disease within the synovial membrane of the knee joint, but there is a marked enlargement of the head of the tibia, with an edematous condition of the overlying tissues. As we pass on downwards below the epiphyseal line we will observe a distinct thickening of the periosteum down to near the centre of the shaft.

After a careful analysis of all the symptoms and signs, it is my opinion that there is deep-seated disease, probably suppurative, in the cancellous tissue. Acting on this presumption we will trephine him through the cortex and endeavor to

reach the seat of pathological changes.

Our next and last case is one of fistula in ano in a young woman. She gives us the history so common in these cases of having suffered previously from "piles;" then she had an abscess, which burst externally and for the last three months has continued to discharge. She is a well-nourished, vigorous person, and came here because of the pain of the fistula, and that she wished to be cured as speedily as possible. I find that the sinus is one of that description which might be readily cured without any cutting operation, though, as she is anxious to get well quickly, we will perform our usual operation under these circumstances of dissecting the entire fistula out and then hermetically close in the nude tissues with the buried suture. In all these cases it is important that the bowel be first thoroughly washed out and then locked up with opium until solid union obtains.

Book Reviews.

THE THERAPEUTICAL APPLICATIONS OF PEROXIDE OF HYDROGEN (MEDICINAL), GLYCOZONE AND HYDROZONE. By Charles Marchand, Chemist. Ninth Edition.

This book of 200 pages, which contains all information on the subject, with reprints of elaborate articles by leading contributors to medical literature, will be mailed to doctors mentioning this publication.

Send full address to Charles Marchand, 28 Prince street, New York.

We trust every reader of this journal will comply with the conditions to obtain this book, as there is a great deal of useful knowledge stored among its pages, and the contributors to the articles contained therein are from some of the leading practitioners of this country. The book will be sent free to readers mentioning this journal, a postal only being necessary.

BOOKS AND PAMPHLETS RECEIVED.

EIGHTEENTH ANNUAL REPORT OF THE MANAGERS OF THE SANITARIUM ASSOCIATION OF PHILADELPHIA. 1894.

REPORT OF A SURGICAL CLINIC. (Illustrated.) Complimentary to the visiting members of the Mississippi Valley Medical Association. By Professor Augustus C. Bernays, A. M., M. D.

AMPUTATION OF THE FEMALE BREAST. By W. W. Keen, M. D., LL. D. Philadelphia. Reprinted from the Cleveland Medical Gazette, December, 1894.

AMPUTATION OF THE ENTIRE UPPER EXTREMITY (INCLUDING THE CLAVICLE AND SCAPULA) FOR SARCOMA FOLLOWING FRACTURE OF THE CLAVICLE. EXTENSIVE THORACOPLASTY BY SCHEDE'S METHOD. By W. W. Keen, M. D.

THE SURGICAL TREATMENT OF INGUINAL HERNIA. By Henry O. Marcy, A. M., M. D., LL. D., of Boston, U. S. A. Reprinted from the Transactions of the New York State Medical Association, Volume 11, 1894.

TYPHOID ULCER; PERFORATION (?); OPERATION; DEATH. CEREBRAL CYST; OPERATION; RECOVERY. By B. Merrill Ricketts, Ph. B., M. D., Cincinnati. Reprinted from the Cincinnati Lancet-Clinic, April 6, 1895.

DISLOCATION AND DOUBLE FRACTURE OF THE UPPER THIRD OF THE HUMERUS. By B. Merrill Ricketts, M. D., Cincinnati, Ohio. Reprinted from the Journal of the American Medical Association, September 8, 1894.

THE SURGICAL TREATMENT OF SPINA BIFIDA. By Henry O. Marcy, M. D., of Boston, Mass. Reprinted from Annals of Surgery.

THE ETIOLOGY, PATHOLOGY AND TREATMENT OF INTES-TINAL FISTULA AND ARTIFICIAL ANUS. By N. Senn, M. D., Ph. D., LL. D. Reprinted from the American Journal of Obstetrics, Vol. XXX, No. 3, 1894.

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PHILADELPHIA, MAY 4, 1895.

THE FORTHCOMING MEETING OF THE AMERICAN MEDICAL ASSOCIATION IN BALTIMORE.

We are again on the eve of another annual meeting of the American Medical Association, and as last year, we may expect another attack on the code question; besides, it is presumed that the delegates from Pennsylvania will open an attack on the management of the "Journal."

From all indications, then, we may look for a lively debate in the executive sessions. The scientific part of the programme promises to be well up to the standard of former years.

As the meeting this year is to be held in close contact with several of our great medical centres, it is expected that the attendance will be very large.

But few of us fully realize the importance of giving the National Association our hearty and loyal support, for it is supposed to represent the united thought and action of the body-medical of our vast country.

Its power for doing good, for extending the latest and most advanced progress in the healing art, consolidating and raising the profession, is great. As we understand it, it was organized for two cardinal purposes, viz., to advance the science of medicine and, what is not less important, to extend its protecting arms around its members and raise the dignity and influence of the profession by their unified and concerted action.

Its code of ethics was formulated with a view of raising the standard of medical education, of imposing rules on its members, the observance of which might enable practitioners to follow their calling without committing injustice to each other; and finally to impose a penalty on those who disregarded the obligation or honor imposed on all reputable practitioners.

It is true that things have undergone a most revolutionary change since the code was first promulgated, and perhaps the time has come when it may be modified with advantage.

It is a serious question, however, which should be considered with great caution.

Judging from what has occurred in New York, it is clear that it is but a very short step from an amended code to no code at all. There they tried the "new code," which was satisfactory to no one; then the State Medical Society compromised the matter by repealing all codes.

The recent subdivision of medical practice into so many specialties has led to this code agitation. The specialists and consultants, with few exceptions, are impatient to throw off any yoke that restricts their practice, as the homeopathists and eclectics have been liberal supporters of those new departures. But, now that these sects are training and annually turning out a considerable number of specialists themselves, in the near future they need not leave their own ranks to consult with those advanced in special branches.

The American Medical Association has earned for itself the gratitude of our whole profession for its successful efforts in the way of raising

the standard of medical education. Let it now, with its representatives from all our States, raise our medical standard of qualification.

Why cannot the United States, like Great Britain, have a uniform medical standard for all the States?

Let the country be districted, with the Central Medical Council in Washington, so that after having passed through a medical college the graduate, previous to being allowed to practice, goes through the national examination before the most convenient district Board of Examiners. Then, having succeeded, his certificate will not be, as now, for one State only, but the whole United States.

The Journal of the American Medical Association was never in its history so ably edited and as well managed as it is to-day, and there seems no reasonable or just grounds for the hostile comments of those who, it seems, are rather interested in destroying its influence than raising the tone of its advertisements. The "Journal" now stands alone at the head and front of American medical journalism. If it be the intention to discontinue its publication let it be so understood; otherwise, we should unite in strengthening the hands of the editor by an active and generous support.

PHYSICIAN—DISPENSER.

The modern stupendous advances in the arts and sciences have not come without making their impress felt on the craft and industries of every description.

Inventive genius, if it has created new occupations, has crippled and destroyed many formerly prosperous industries.

A single glance at that hidden, mysterious force called electricity is enough to convince the most skeptic of this fact.

A single machine will roll out more and better-made pills in one day than the old-time pharmacist would make in six months. After the mass is prepared a boy will feed it, and a one-horse dynamo, costing 40 or 50 cents per diem, will supply the power. Pharmacy as it was known

30 years ago is a lost art, and every year the honest, skilled apothecary is finding it more and more difficult to exist. Good, reliable drug stores are yearly becoming scarcer, and but few proprietors have survived the strain of our late depression that did not surreptitiously sell liquors, counter-prescribed, or treat venereal diseases.

The main stay of legitimate drug business has been physicians' prescriptions; but, modern charity and pharmaceutical manufacturers have placed in the doctors' hands medicinal agents in a concentrated form, and at a very small expense, so that practitioners are very generally reverting back to the old custom of supplying their own medicines. They find it unsatisfactory to their patients and profitable to themselves. In France, in large cities, physicians are prohibited by law from dispensing their own medicines and with equal rigor, penalties are imposed on the erring druggist who takes a chance on prescribing.

It is unfortunate that circumstances compel the physician to dispense himself, for the druggist has always in the past been his best friend and ally; but how we are to change the condition of things forced on us is a hard problem to solve. Perhaps its solution may be that in time the druggist will be so trained in medicine as to secure State permission to prescribe for and treat cases in his pharmacy. To a large mass of the suffering poor that would be a veritable boon.

ADVERTISING IN THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

The discussion of proprietary advertisements and the proper conduct of the journal of the American Medical Association comes up prior to every annual meeting of the association, ad nauseam, and, we are inclined to believe, it will continue ad infinitum.

There is only one true method of dealing with this question, and it resolves itself upon two points; first,

shall the Association increase its annual dues to support the journal, and eliminate every advertisement in its organ? Second, shall advertising pages in the journal be open to everyone?

We believe that the journal should be made a journal of transactions of the society and a means through which the medical thought of the Association may be expressed, and that the same could be carried on without a single advertisement.

With a membership of 5000 physicians \$3 extra assessment ought to carry on the journal in an extremely satisfactory shape. Then it would become a model medical journal, and should gain for itself alone a wider circulation of paying subscribers than the 5000 limit. In fact, we are quite sure it would be a great success on this plan.

THE MICROBE OF DEATH.

A Chicago medical man has startled the world by announcing the discovery of a "microbe of death." There is an artistic cleverness about this feat that almost disarms criticism, and makes one willing for the moment to suspend the stern application of the ever-present logical faculty. The enterprising discoverer states that his new microbe resembles the bacillus of consumption. So far as we can gather from the meagre telegraphic reports that have come to hand upon the subject, he applies his theory by driving the "microbe of death" out of the animal system. When that happy consummation has been reached no known disease can obtain any hold on the fortified individual, and nothing short of actual violence can put an end to his existence. It is somewhat unfortunate for the picturesque theory of the Chicago physician that so many different species of microorganisms are known to science, each and all of which act as microbes of death to many millions of mankind. However, the title and subject-matter have a distinct journalistic value in which the discoverer will doubtless find his reward.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

CASES OF INTESTINAL RESECTION.

BY C. STADSGAARD,
Nor. Med. Arkiv. 1894, No. 6.

Our author's experience is based on nine cases. In two resection was made for gangrene of intestine after strangulated hernia; one immediately succumbing and the other recovered. After a herniotomy he believed the secondary operation on the bowel the safer. In two other patients resection was performed for invagination at the ileo-cæcal valve. In both the issue was fatal. In the fifth there was a stricture, cancerous, of the sigmoid-flexure. This was resected and patient made a good recovery. In another, a woman with a history of phthisis, it was necessary to resect the cecum and appendix for chronic inflammatory stenosis. Result good. In the ninth case there was an incarceration of the jejunum, produced by a thick fibrous band; 75 centimetres of the intestine were removed, the patient recovering. It appeared to the author that the nearer the point of resection to the stomach the greater the mortality.

TRAUMATIC RUPTURE OF THE BLADDER, WITHOUT ANY VISIBLE MARKS OF INJURY TO THE ABDOMINAL WALL.

(Kronstadt Medic-Med. Revue 1894,
par A. Matvieff).

A drunken man of 42 years fell from a carriage on the abdomen. He was raised and brought home in great pain. Three days later he entered the hospital, when he was having feculent vomiting. Sixty grammes of urine were removed. This was mixed with blood. The patient refused laparotomy and died shortly after admission. On autopsy a large quantity of yellowish fluid of a resinous odor and mixed with blood occupied the peritoneal cavity. There was an intra-peritoneal rupture of the bladder five centimetres long. There was neither ecchymosis nor

contusion of the abdominal wall. Death was caused by septic-peritonitis.

THE PRODUCTION OF RUPTURES OF THE LIGAMENTS OF THE KNEE-JOINT ON THE CADAVER.

BY J. HONIGSCHMIED.

The author experimented on 150 subjects and studied separately the various lesions produced by hyperflexion, hyper-extension, hyper-abduction, hyper-adduction, pronation and supination. Here are the results: Hyperflexion produced an incomplete rupture of the anterior crucial ligaments at the point of insertion into the head of the femur. The seat of laceration was constant. The result of hyper-extension was much more complex. The following lesions were produced: Rupture of the posterior and crucial ligaments, a rupture of one or the other of the lateral ligaments, one or both, with detachment of the interarticular cartilage, complicated by rupture of the popliteal muscle. This movement, too, may produce a supra-condyloid fracture, a fracture through the head of the tibia, or a separation of the epiphysis. It may sometimes allow a luxation of the head of the tibia.

Hyper-adduction produced laceration of ligaments with subluxation. In all cases the external lateral ligament was torn through, while in some the crucial, or even the capsule of the joint sundered. Very often the articular cartilage was detached; a fracture through the femur was produced and fracture through the condyles; the internal part of the tibia was contused and the head of the fistula torn away from contact with the tibia. The inferior epiphyses of the femur have been fractured through. Dislocation frequently followed.

Hyper-abduction gives place to first a rupture of the ligaments with a dislocation. Very often the interarticular cartilage gave way: second, frequently a fracture through the neck of the fistula, with dislocation, a supra-condyloid operation of the femur, or fracture of the tibia. Fore-

ed movements of rotation produced various types of rupture of all the structures, a laceration of the capsule and detachment of the cartilage. In young subjects fracture of tibia was common, of the femur rarely; with infants the epiphyses readily separated. Luxation forward and backward was often seen.—*Revue De Chirurgie, Mars, '95.*

DISCUSSION ON THE TREATMENT OF PENETRATING WOUNDS OF THE ABDOMEN.

(Societe de Chirurgie, Fevrier, '95.)

M. Berger opened the discussion by saying that no general rule would apply for our guidance, as much depended on whether a hollow viscus was opened, a solid organ penetrated, or whether our patient was in deep shock after the injury.

Many would interfere immediately, quite regardless of the state of the patient, but he believed that unless the symptoms unmistakably pointed to the organ involved, and there was good evidence of ample strength to bear a laparotomy, he would delay.

M. Chaput cited cases of penetrating wounds of the stomach and intestine in which there had been free hematemesis and passage of blood per rectum that promptly recovered by tentative treatment alone.

M. Kirmisson criticised M. Chaput's views on eventration. He did not believe the consecutive hernia depended on the transverse or on the horizontal incision, but rather on the manner in which the suture was employed.

M. Nelaton had often seen cases which fully supported the views of M. Chaput. A young woman came under his care who was shot in the abdomen, the ball producing several perforations of the intestine. But she had no symptoms. He made a laparotomy, however, and found no escape of the ingesta into the abdomen, the young woman making a good recovery. He believed in the large incision, as it did not add any danger and makes reduction of the intestine much easier.

M. Riches called attention to the prolapse of the mucosum in pistol

ball wounds of the intestine, which readily took on adhesion and prevented leakage.

M. Lucas-Championaire argued with M. Chaput and Nelaton and believed that in cases of intervention we should always make a large incision.

M. Schwartz had a man brought into his service, who had been shot in the right flank, by a revolver. There was no shock, but exploration with the probe revealed nothing. He continued comfortable for two days, when he commenced to vomit. He did not laparotomize because he believed the inflammation was local. Mortal symptoms soon followed. On autopsy, it was found that the ball had taken an irregular downward direction, making four perforations in the small intestine and two in the colon. There was but very little stercoral escape.—(*Revue de Chirurgie*, 10 Mars, '95)

M. Routur reported a case of nephrectomy for primary tubercular ulcer of the kidney. The patient was 28 years old, and was passing large quantities of blood. Internal medication failed. The kidney was exposed by the lumbar incision, and to the feel presented nothing unusual. After removal it was found that there were two large ulcers in the cortical substance. A cystoscopic examination pointed the way to implication of the right kidney, which the operation proved to be correct.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

ANEMIA OF NASAL ORIGIN.

Among the causes of anemia arising from disease of the nasal passages Chabory mentions mucous and muco-purulent discharges as modifying the composition of the blood; all suppurations are followed by more or less anemia, and the pituitary membrane, like other mucous membranes, may be the seat of a drain on the whole organism, as in hydrorrhea and certain cases of chronic rhinitis.

All febrile diseases are accompanied or followed by a greater or less degree of weakness. Malignant tumors of the nose and post-pharyngeal region, by interfering with the supply of air, and by their poisonous products, bring on debility.

Affections of the respiratory, digestive and nervous systems may be secondary to nasal affections, and also causes of anemia. The night-mares, headaches, neuralgias, due to commencing partial asphyxia from difficult nasal breathing are also causes of anemia.—*Rev. Internal de Rhin.*, etc.

ABORTIVE TREATMENT OF SYPHILIS BY IODINE, GIVEN INTERNALLY.

Lamin recommends:

1. Superficial cauterization of the chancre with Vienna paste.
2. Mercurial frictions.
3. The taking, morning and evening, of 3 to 5 drops of tincture iodine. With this plan he has never seen secondary symptoms come on.

Istomanov reports success in several cases of syphilis by the serum treatment.

Jose Aufrinus cures acute coryza rapidly by atomizations of a solution of benzoate of soda.—*Rev. de Therap.*, M. C.

ICHTHYOL IN PSORIASIS.

Nunez has found ichthyol very useful in this skin affection in strength of ten per cent.

Cerchez has cured 17 out of 19 cases of psoriasis with iodide of potassium in large doses. Others have had no result from this treatment. The explanation may be that the drug causes the eruption to temporarily disappear, while it has no power over the disease.

Dermatoses are now being treated as a class by the "thyroid gland" method. No definite results have been so far obtained.

Alumnol is used:

1. Pure, for chancre and venereal ulcers.
2. Mixed with 80 per cent. of talc,

for balanitis, light burns, antiseptic dressings.

3. Solution of 1 to 5 per cent., urethritis and wash for skin affections.

4. Alcoholic solution, 2 to 10 per cent., pustular skin diseases.

5. Ointment.

6. Collodion.

—Rev. de Therap. Med. Chir.

HYSTEROGENIC POINTS IN THE NASAL MUCOUS MEMBRANE.

DR. CASADESUS.

A girl presented herself at the hospital clinic for the cure of convulsive attacks with which she had suffered for some time, and which at certain times occurred daily. The author noticed that nasal respiration was obstructed. On rhinoscopic examination he found hypertrophy of both lower turbinated bones, especially on the left side. With a probe Dr. Casadesus touched the mucous membrane and immediately a convulsive attack came on, which, commencing at the head, became general. Cocaine in ten per cent. solution was applied, and the attack soon ceased. This gave him the idea that the cause of the hysterical attacks was in this location, and to prove it, at another sitting, he first applied the cocaine and then irritated the mucous membrane. No attack followed. The parts were cauterized with the thermo-cautery. No further trouble was experienced.

Courier Med.

RESULTS OBTAINED BY THE TREATMENT OF GOITRE BY THYROID GLAND.

Bruns gives statistics of 60 cases of goitre treated by a new method. Cases of cystic goitre or malignant tumor, were not submitted to the treatment. Basedow's disease is rather aggravated than ameliorated by the treatment. Treatment lasts from 3 to 4 weeks. Bruns uses tabloids, the dose being two a day for adults and one a day for children. The cures were absolute in children. In young persons improvement was shown. In the adult the number of successful cases diminished in a progressive ratio with the age.

THREE CURES OF MYXEDEMA.

The patients, aged 58, 46 and 40 years respectively, of the female sex, were given, after injections of thyroid juice had failed, thyroid glands in a cooked state, and also tabloids of the powdered glands. In two cases the disease was a sequel to menorrhagia and metrorrhagia. The diminution in weight during treatment was 7.1-2, 9.75, 8.5 kilograms. Cure was complete at end of a few months. The hypodermic method caused abscesses and was not so reliable.

The same remedy has been tried in Basedow's disease, and in some nervous affections, but no result of consequence was observed.

Boric acid is recommended either sprinkled on linseed meal poultices, or used in form of ointment, 30 gr. to one ounce as a treatment for erysipelas.

Where tuberculosis is due to a gouty condition extract of colchicum has proved very useful.—(Rev. de Ther. Med. Chir.)

Salicylate soda is recommended by Chibret in Basedow's disease as being quick and lasting in beneficial effects.

Sulphur is recommended as an antiseptic wound dressing, especially in articular tuberculoses. It is extensively used in Guy's Hospital in this way.—(Rev. Ther. Med. Chir.)

DIABETES.

Dr. Clemens, of Frankfurt-on-the-Main, reports favorable results in this disease from the administration of pure guaiacol, in the daily dose of from 18 to 30 drops, given in three doses, suspended in milk or cod liver oil. The patients were allowed to drink beer, and were upon a nitrogenous or mixed diet. At the end of eight days there was a notable diminution of sugar. After four weeks of treatment the patients were able to partake of some saccharine foods without increased glycosuria being produced. The salutary effect upon the polyuria was still

more pronounced. At the end of several days of treatment the amount of urine passed in 24 hours had often diminished by one half. The general condition was improved. The drug was well borne.—*La Med. Moderne.*

TO RENDER EXALGIN SOLUBLE.

P. Cesaris finds that exalgin dissolves in a solution of salicylate of sodium, and proposes the following formula:

R. Exalgin. gr. xv.
Sodii salicylat. gr. xv.
Aq. destillat. dr. iiss—M.

It is said, however, that, upon cooling, a portion of the exalgin is deposited at the end of a few days.—*Med. T. and H. G.*

CARDIAC MURMURS IN DISEASES OF THE STOMACH.

A paper was read upon this subject at the International Congress by M. Bargherini, of Padua. The speaker traced a relationship between affections of the stomach and liver and those of the heart. He had constantly observed cardiac murmurs in chronic gastritis, gastric ulcer, dilatation, etc. He has even been able to reproduce experimentally the murmur of the precordial region by injecting a large quantity of liquid into the stomach of healthy individuals.

THE SERUM TREATMENT OF DIPHTHERIA.

Mya (*Lo Sperimentale*, February 21, 1895) discusses some of the drawbacks to the serum treatment. Cutaneous manifestations have been unanimously attributed to the treatment; they have rarely been hemorrhagic, and occasionally with general disturbance. A very few cases of articular complications have been noted, which pursued a rapid course, but were not serious. Some have attributed, with apparently insufficient reason, renal, cardiac and nervous complications to the serum. The author's observations extend to over 50 cases, and the inconveniences caused by the treatment have been insignificant. In four cases there was a scarlatiniform eruption. The

resemblance in one case to scarlet fever led to the isolation of the patient, but the subsequent course showed the true nature of the case. A rapid and evanescent urticaria was seen in two cases. Sometimes the temperature was raised and a general disturbance was noted. This, of course, is no contraindication to the treatment. Most authors have attributed the eruptions to the horse serum. The serum does not possess any demonstrable action upon the red blood cells. The author would attribute the cutaneous manifestations to a vasomotor change or to an alteration in the lymphatic circulation. Fever must be due to exaggerated personal susceptibility. Dose has no effect in producing the cutaneous complications. The author does not think it possible to attribute either albuminuria or the myocardial and nervous manifestations to the serum. Among the 50 cases there was diphtheritic paralysis in four or five cases, and in one sudden death from cardiac complications; but in days before the serum treatment the author saw more cases of this kind. He concludes that the serum should be used early and abundantly in severe cases. It must be recognized that since the introduction of the serum treatment cases hitherto looked upon as beyond help have recovered, and especially in infants.—*Santucci and Mucci (Lo Sperimentale*, February 11, 1895) first remark upon the technique of tracheotomy. They have treated 13 cases with serum supplied by Roux and Behring. The diagnosis was confirmed bacteriologically in six cases. The cases were all injected, except one, immediately after admission. In only two cases was urticaria noted. Among 13 three died, representing a mortality of 23 per cent., whereas in seven cases otherwise treated during the same period four died. The authors think that the results speak in favor of the serum treatment. They also are of opinion that tracheotomy increases the gravity of the case by opening the way to the absorption of infective products, but intubation is only practised in Mya's clinic in infants under 1 year of age,

in whom recovery after tracheotomy has not been noted.—Silva (Gaz. d. Osped., March 2, 1895) has treated 17 cases with Behring's serum, details of which are given. The youngest patient was 10 months, the eldest 15 years old. Bacteriological examination was made in 15 cases, and in 14 Loeffler's bacillus was found. Of the 17 cases three died, but one of these was obviously not diphtheria, and perhaps another should also be excluded; the mortality would then be 7.14 per cent. Among the recoveries were some very severe cases with complications. In six cases there were symptoms of laryngeal stenosis. Sometimes the serum was injected into the veins, and then half the quantity only was used. No signs of local irritation were produced. Enlargement of the submaxillary glands was noted, and the membrane began to detach itself spontaneously. Where albuminuria or nephritis was present the serum did not aggravate it. The general condition of the patient was improved. Recovery soon took place after the injection—in from five to 11 days. Paralysis was twice seen. There was a suppurative parotitis in one case. The author concludes that the results of the treatment were satisfactory.

Therapeutics.

IN CHARGE OF
DR. LOUIS LEWIS, Philadelphia.

CHRONIC LEAD POISONING.

Dr. J. Peyron publishes results of his experiments with monosulphide of sodium in chronic lead poisoning. He fed dogs for 23 consecutive days with white lead—0.3 grammes (5 grains) daily, and afterwards gave some of them 15 times a daily dose of 1 gramme (15 grains) of sodium monosulphide, while the remainder received no treatment. In the animals treated with the sodium sulphide the symptoms of the disease were soon arrested, while the other dogs remained sick. The livers of the former contained only traces of lead, those of the latter containing

considerable quantities. The author concludes from these experiments that sodium sulphide removes the lead from the organism, and is, therefore, serviceable in chronic lead poisoning.—Apoth. Zeitg.

TOOTHACHE.

Dr. Hartmann (Deutsche Med. Wochenschrift) has employed thymol in toothache from hollow teeth in place of arsenious acid. He fills the cavity of the tooth with a tuft of cotton on which a few crumbs of thymol have been sprinkled. It does not irritate the mucous membrane of the mouth much, and it is easily removed by rinsing the mouth with water. If a rapid action is desired, let the patient rinse the mouth often with warm water, in order to facilitate the solution of the drug. It never increases the pain at first, as arsenic does, and is not poisonous. Others pack the cavity with cotton moistened in a mixture thus composed:

Rub together equal parts of
Carbolic acid (liq.),
Gum-camphor,
Chloral hydrate,
Menthol,
Glycerine.

S. Apply.

VINEGAR IN VOMITING AFTER CHLOROFORM.

Dr. Warholm has employed vinegar with success in the treatment of vomiting after anesthesia by chloroform. He damps a cloth with the liquid and places it near the patient's nose, allowing it to remain there until he awakens, or even longer if vomiting then threaten. He warmly recommends its use.—Med. and Surg. Rp.

NON-SURGICAL TREATMENT OF HEMORRHOIDS.

The Gazette des Hopitaux lays down the following indications of hemorrhoids which should not be operated on: 1. Symptomatic hemorrhoids, sometimes due to stricture or cancer of the rectum, to affections of the prostate, bladder or urethra; sometimes they are caused by a gravid uterus, a fibro-myoma or an ovarian cyst pressing on the pelvic

veins; again, they may result from cirrhosis of the liver. In all these cases the primary cause should be treated; an operation is at least useless if not dangerous. 2. Hemorrhoids without any important symptom. Some patients experience neither uneasiness, pain nor hemorrhage. They are obliged to watch the condition of their bowels, but are not otherwise incommoded. 3. The most important class for non-interference with the knife is the prolapsed, strangulated or prolapsed. These are really cases of infectious phlebitis and an operation is not without danger. In all cases the patient should adopt certain prophylactic measures. All irritation of the anal region should be avoided; constipation, with a large hard stool, should be controlled by appropriate diet, the use of laxatives, etc.; the bowels should be moved as nearly as possible at a certain hour so as to induce regularity and should be followed by ablutions of warm water, either plain or borated. Injections of boric acid are recommended as controlling congestion as well as facilitating defecation. If small bleedings occur it will be useful to give large injections of water at 40 to 45 degrees and local applications of sponges or tampons of water at 50 degrees. If the congestion is prolonged, if there is inflammation and danger of gangrene, hot applications are indicated, but it will be found well to employ certain topical agents—either calomel or tampons saturated with glycerin, 35 grams; iodine, 20 centigrams to 1 gram; iodine of potassium, 2-5 grams. The applications are slightly painful and it is best to begin with the smaller proportion of iodine. The use of soothing ointments is often indispensable—the old-fashioned poplar ointment answers very well. It can be associated advantageously with belladonna and antipyrin—e. g., poplar ointment, 30 grams; antipyrin, 2 grams; extract of belladonna, 1 gram. Irrigations with laudanum or antipyrin also give excellent results. The oozing and irritation which often complicate external hemorrhoids usually cease with cleanliness and the use of boric

acid solution. It may be well to use between the irrigations a pad of cotton impregnated with borated vaselin or to powder the part with some inert absorbent powder, such as subnitrate of bismuth.

COCAINE INJECTIONS IN PLACE OF CASTRATION FOR ENLARGED PROSTATE.

Dr. S. E. McCully writes to the Medical Record: "For many years the difficulty of enlarged prostate has been to me one of considerable importance. Castration is probably the least desirable operation in operative surgery, not because of the difficulties or dangers present in the removal of the testicles but because of the destruction of the virility of the individual concerned.

There is an old saying, "any port in a storm," and while in search for a remedy short of absolute castration I have devised a method that has so far succeeded in two cases. My method is to inject cocaine directly into the testicles twice per week for about two months. There is considerable absorption, spermatozoa cease to be produced in about six weeks; the patient gets immediate relief from the distressing symptoms of prostatitis and enlargement, the gland gradually shrinks to its normal size, and the finale of the case is recovery, with the power of copulation, but absolute cessation of the production of spermatozoa. Is not this better than castration?

TREATMENT OF NOSE-BLEED.

Dr. Lermoyez (Hospitalstidende, No. 2, 1895) in slight cases of nose-bleed advises compressing the nose between the thumb and forefinger for 10 minutes; if that be insufficient then apply locally a tampon moistened with a 10 per cent. solution of antipyrine which is an excellent hemostatic and much superior to cocaine (1.5) which latter not only has the disadvantage of being toxic but also of being possibly followed by further hemorrhage after the vaso-constrictor action has passed away. It is also to be preferred to solutions of chloride of iron, which are strong irritants and may give

rise to gangrenous ulcers. In more severe cases a nasal speculum is introduced and the anterior portion of the nose tamponed with fine strips of iodoform gauze four inches in length and one in breadth; these are introduced with fine forceps. As the hemorrhages nearly always arise from the anterior portion of the nasal cavity there is no necessity of tamponing far back. Tamponade of the posterior nares is not only entirely unnecessary but brutal and often dangerous.

SULFONAL IN CLIMACTERIC INSANITY.

In the International Medical Annual and Practitioner's Index just issued Dr. James Shaw writes as follows with reference to the treatment of climacteric insanity, an affection occurring usually in women in their fifth decade: "These cases are capable of treatment at the seaside or in a bracing rural locality, and are much benefited by an open air life, care being taken to avoid over-exertion. It should not be forgotten, however, that the half-hearted suicidal attempts might by accident prove successful. This being kept in view it is always worth while to endeavor when feasible to spare the patient the depressing effects and the stigma of asylum residence. Institutions similar to the Convalescent's Homes for other diseases are badly wanted for patients of the poorer class in the neurotic and incipient stages or suffering from mild uncertifiable climacteric psychoses." In regard to the general treatment the author recommends tonics and restoratives, as iron and quinine, hypophosphites, gentian and cod liver oil. Against the insomnia, which is a characteristic feature of this form of dementia, he recommends sulfonal in 20 to 40 grain doses, which he states acts well in most cases and safely. Its action is enhanced by the exhibition at the same time of a few grains of gray powder. Bromide of ammonia is also considered serviceable in small doses to diminish irritability. Dr. Shaw's favorable estimate of the value of sulfonal as a hypnotic in insanity is shared by a

large number of other alienists and neurologists. Aside from its incontestable power in producing normal refreshing sleep, it has the marked advantage over other hypnotics of being available in conditions of dementia attended with respiratory and circulatory disturbances, since an extensive series of experiments have demonstrated its entire freedom from weakening effects upon the heart and vascular system.

Gynecology and Obstetrics.

FETAL SKELETON, NOT LITHOPEDION, IN PELVIS.

Emanuel (*Zeitschr. f. Geburtsh. u. Gynak.*, vol. xxxi, parts 2, 1895) exhibited at a recent meeting of the Berlin Obstetrical Society a specimen of some importance in relation to the fate of cases of ectopic gestation when no operation is performed. The specimen was from an old woman who died of diffused melanoma. The menopause had been completed 10 years before death, and at that time the pelvic tumor formed by the specimen seemed as large as it was at the patient's decease. The specimen was reported by Sonnenburg last summer as a lithopedion. Further examination has proved that there was no deposit of calcareous salts, whilst the soft parts of the fetus had entirely disappeared. Most of the bones lay loose in the cavity of the sac, whilst the vertebrae were intimately adherent to a part of the wall consisting of degenerate placental tissue. The pregnancy was tubal.

SYMPHYSIOTOMY.

Kufferath (*Ann. de la Soc. Med.-Chir. de Liege*, February) on May 23, 1893, performed symphysiotomy in the Brussels Maternity on a rickety multipara, aged 41, pregnant for the ninth time. In none of the previous pregnancies had a living child been delivered. The pelvis in the sacropubic diameter measured 6 1-2 centimetres. As the premature induction of labor had failed on the former oc-

casions Kufferath determined not only to induce labor, but to perform symphysiotomy at 8 1-2 months. By this procedure he saved both the mother and the child.

EPITHLIOMA OF THE VAGINA.

J. CHERON.

R Water200 gr
Carbonate of potassium....18 gr
Laudanum (Sydenham).....5 gr

M.—Make morning and evening a tepid injection with one litre of water added to two or three spoonfuls of the above solution.

EROSIONS OF THE NECK OF THE UTERUS.

DOLERI.

The treatment must confront:

First. Simple erosion.

Second. Secondary.

Third. The necks not eroded, but formerly diseased and on which has occurred already the work of cicatrisation.

Cauterizations present the inconvenience of favoring and hastening the superficial cicatrisation of the glandular orifices and of the spaces situated between these orifices. The better treatment is antiseptic and anodyne, which leaves the field free for spontaneous repair; the glycerine tampon rendered antiseptic by the iodoform or by any other substance, the injections, etc.

Actual cautery cures more surely, because it destroys all; but, besides that it is dangerous, it offers the grave inconvenience of taking away aptitude for fecundation.

The secondary erosions, and the voluminous deformed necks, cicatricial, hypertrophied, etc., with cystic degeneracy of the glands are only susceptible of cure by chirurgical means, plastic or mixed—that is to say, by means which imply the ablation of the diseased part and the restoration of the form.

EXCORIATIONS OF THE NIPPLES.

Place on the excoriations compresses soaked with the following solution:

R Boric acid.....6 grams
Distilled water.....300 grams

Cover over the compresses with gummed taffeta.

—Pinard.

ITCH IN THE PREGNANT WOMAN.

Starch baths every two days.

Friction in the evening, during five or six days, with:

R Naphthol 6.....10 grams
Either.....q s
Essence of mint.....q s
Vaseline.....100 grams

CHLOASMA, SPOTS OF THE PREGNANCY, AND FRECKLES.

R Unguent of vigo.....15 grams
Vaseline.15 grams

Spread on muslin and cover with gummed taffeta. Next morning clean the skin with warm water, and, during the day, apply a pomade composed of:

R Carbonate of bismuth..10 grams
Kaolin.....10 grams
Vaseline40 grams
—Besnier.

CHLOROSIS.

Do not give iron associated with manganese. Prescribe the manganese singly.

Here are two formulas:

R Carbonate of manganese.10 grms
Extract of gentian.....q s

Make into one hundred (100) pills. Take two or three of these pills twice each day before meals.

R Sulphat. of manganese.
Iodide of potassium.a a 10 grams
Honeyq s

For one hundred (100) glazed pills. Sig. Same as for preceding pills.
Potani.

MODIFIED OVARIOTOMY.

Dr. Pozzi, at Hospital Broca, has modified his ovariectomies for the past two years by only removing the organs when totally diseased. When laparotomy is performed, and the ovary drawn out of the abdominal wound, if it is found partly healthy, Dr. Pozzi amputates the affected portion, cauterizes the stump, and sews the end with silk. In cases with small cysts he opens them by touching with Paquelin's cautery. In one case, in which he operated upon both ovaries, the patient has since borne a child.—Med. Times and H. G.

CARCINOMA OF UTERUS AND SIGMOID FLEXURE.

Czempin (Centralbl. f. Gynak., No. 50, 1894) observed this condition in a woman aged 54. For six months she had suffered from severe floodings and sharp bearing-down pains. There was much discharge between the attacks of hemorrhage, and the patient was greatly exhausted, the mind being also affected. The sound passed into a spongy tissue, free hemorrhage being caused; a cupful of soft material was then scraped away, and proved to be cancerous. Vaginal hysterectomy was deemed impracticable, as a mass was felt over the fundus which seemed to represent adhesions, and abdominal section was undertaken. A cancerous tumor of the sigmoid flexure was found adherent to the uterus. That organ was removed with its appendages; the patient's condition was so bad that resection of the cancerous gut was not thought justifiable. The patient died 16 hours later. At the necropsy cancerous deposit was found between the layers of the left broad ligament. The malignant disease had advanced in that manner from the uterus to the intestine.

RETENSION OF AFTER-COMING HYDROCEPHALIC HEAD.

Charles, of Liege (Journal d'Accouchments, March 31, 1895), relates a troublesome case of this kind. The patient was 24, and in her third pregnancy, which seems to have gone on well enough to term, though towards the end there was much pain in the flanks and hypogastrium. On the night of March 13 labor began; at 8 A. M. on the 14th the midwife arrived and ruptured the membranes; at 9 A. M. a local practitioner attempted turning and extraction. All went well till he tried to deliver the head. Traction proved useless, the forceps could not be fixed, so the patient was sent to the Liege Maternity, with the child half delivered. The fundus still lay as high as four fingers' breadth above the umbilicus, though the whole fetal trunk was external to the vulva. The perineum was ruptured as far as the anus, the

neck was detached, excepting a tract of integument, and the lower jaw had been torn away and lay outside with the trunk. Yet the head was very high, far above the inlet. The hospital midwife tried to pass a rubber catheter up the spinal canal, so as to tap the cranium (there was a spina bifida), but the cervical vertebrae were already crushed, so this maneuver failed. Charles arrived, and detached the neck, which was useless for any manipulation. The foramen magnum could not be accurately made out, being buried in lacerated tissues. Charles passed his entire left hand up to the fetal cranium, and then made an opening with Blot's perforator. The cerebral fluid, with pieces of brain matter soon came away; then two fingers were passed into the perforation, the head being gradually delivered. The placenta came away a quarter of an hour later. The perineum was sutured. Antiseptic vaginal and intrauterine injections were thrown up twice daily during the puerperium, as the temperature rose to 104 degrees, and there were fetid lochia. By the 10th day the patient was well.

OPHTHALMIA NEONATORUM.

For ophthalmia neonatorum M. Kalt recommends solutions of permanganate of potash. He employs it in the strength of 1 to 5000, and directs that it should be used freely, a pint or more being directed between the lids from an irrigator twice a day. He holds that it can be effectively used by midwives and nurses who could not be trusted with the thorough carrying out of the classical nitrate of silver applications. The value of his plan has been severely criticized, and readers should refer to Mr. Tweedy's lecture and an abstract of a paper by Professor Budin, both of which will be found in the last number.—London Practitioner.

A Hot Springs doctor recently sent in his bill to a lady which read as follows: "To curing your husband till he died, \$20.—Arkansas Thomas Cat.

Miscellany.

THE YOUNG PHYSICIAN IN THE CITY.

That merit will assert itself under the most trying circumstances cannot be doubted, and it will cause its possessor to assume the position as high as he deserves, if allowed an abundance of time. However, it often subjects him to rebuffs, slights, insults and injuries, before the recognition of its true worth is actually appreciated.

Now, without fear of having it gainsaid, there are at least 25 and probably 30 thoroughly competent and meritorious young men in the profession in Atlanta who are not earning enough to defray their necessary expenses, and some of these have been waiting patiently for good long times in the hope that something might develop.—The Atlanta Clinic.

SPONTANEOUS CURE OF PHARYNGEAL TUMOR.

D'Agunno reports a few cases in which new growths of the pharynx or naso-pharynx have disappeared without the aid of any method of treatment. That this takes place in the case of adenoid vegetations is well known, and certain new growths which though unsuspected may be syphilitic will disappear under iodide of potash; other benign tumors also not infrequently decrease in size or disappear without any very evident cause; but the author has collected a few cases in which sarcomata, apparently steadily advancing and threatening life, have taken on a retrograde growth, or even disappeared. This occurs especially in those tumors very rich in vessels. The retrogressive phase takes place most frequently through alterations in the walls and contents of the vessels; and in other cases the growth appears to be destroyed by some special parasitic infection, notably erysipelas.—Boston Med. and Surg. Journal.

"KISSING THE BOOK."

The Legislature of Pennsylvania has decreed that the oath on the Bible shall be dispensed with. The Governor of the State has indicated that he will approve of the enactments to that end. While it has always been at the option of the swearing citizen to "affirm" or to take the oath, the average person has not known of this alternative, and has done as directed when told to "kiss the book." This latter has the tradition and awe of the ages of court procedures behind it, but the multitude cannot fail to recognize the change as a modern reform. The silent work of the theory of the germ production of disease has undermined the time-honored process that has been winked at and tacitly continued by the police and other magistrates. These latter are not all of them "posted" on the properties of a kiss-moistened leather-covered book to hold and to propagate the bacilli of disease, and the presumption is that not a few of the Pennsylvania Dogberries will regard the amending act as a blow against the defenses of justice. To such no doubt the removal from their desks of the dirty greasy Bible will appear as a misfortune and an ill-advised innovation. To our bacteriologists and sanitarians, however, it will stand as a mile-post on the road of progress.—Journal of A. M. A.

Dr. Roswell Park, professor of surgery in the Buffalo University Medical College, was elected president of the Medical Society of the State of New York at its recent annual meeting. Dr. Park is also a member of the New York State Medical Association.

REMOVE THE CAUSE.

If your patient is pale, weak, nervous, irritable and losing flesh, he is suffering from malnutrition, "caused by" indigestion and malassimilation; remove the cause by giving two fluid drachms of seng for each meal.

Dyspnea of Phthisis.—Dr. Bernheim recommends the following:

R—Caffeine citrat 3 gr.
Sulphuric ether 5 dr.
Injected hypodermically 30 minims
morning and evening.

Spasmodic Cough.—Codeia seems to have a special action upon the nerves of the larynx; hence it relieves a tickling cough better than any ordinary form of opium. Two-thirds of a grain may be given half an hour before bed time.—Dr. J. Braithwaite.

Lanolin Enemata.—Liebrach states that lanolin, injected into the rectum, has a soothing and healing effect upon erosions and other forms of rectal inflammation. The same method is of service in case of hemorrhoids. He employs a lanolin-cream made without glycerin.—*Deutsche Med. Zeitung*.

Epidemic Influenza.—

R—Alpha-naphthol 8 gr.
Calcined magnesias 3 gr.
Phenacetin 4½ gr.
From four to six such powders daily.—
Maximovitch.

Treatment of Erysipelas.—Arnozan strongly recommends the following treatment: Quinine is administered to the extent of 8 to 16 grains, in accordance with the temperature, 4-grain pills being given three or four times daily, so that the patient is kept constantly under the influence of the drug. Over the affected surface is applied an ointment made up of

R—Bichloride of mercury 1 gr.
Lanolin
Vaseline, of each ½ oz.
—Arch. de Med. et de Pharm. Milit.

Hemorrhage after Tonsillotomy.—Mix together tannic acid, three parts; gallic acid, one part; add a few drops of water. Knead powder until it is a hard mass; take from it sufficient to form a ball the size of a small marble. Place this on forefinger of hand corresponding to side of patient from which hemorrhage occurs, and introduce into patient's mouth, rubbing it firmly against bleeding surface, making counter-pressure with palm of other hand on side of head over region of tonsil.—Hovell.

PRESCRIPTIONS IN LATIN.

Many innocent persons, says the *New York Times*, have died before their time because doctors persist in making out their prescriptions in what passes for Latin. The latest victim of this habit is a baby three months old, the son of an East Side tailor named Cohn. The child had a cold, and Dr. Herman Jarecky, who was called to attend him on Sunday, made out a prescription which, when filled, was to contain, among other ingredients, three drachms of castor oil. The doctor did not write "castor oil," but "Ol. Ricini."

The drug clerk used "oleum pini" instead of "oleum ricini," and two doses of the medicine killed the baby—so says the *Times*. The editor thereupon attacks, with the usual arguments, the practice by physicians of using Latin in writing their prescriptions.

However correct the critic may be, his present illustration of the alleged evils of Latin is unfortunate. There is no such thing in our dispensaries as oleum pini. There are oleum pini foliorum and oleum pini sylvestres foliorum; and if these drugs had been indicated the prescription could have been understood in any part of the civilized world. The baby did not die therefore because the prescription was written in Latin. The essential fault and danger in prescription-writing after all is bad and careless writing by the doctor, and hasty reading by the druggist. We do not see how changing the prescriptions into vernacular would help matters, and it would make infinite confusion and trouble to students of the literature of therapeutics.

The teachers in our colleges ought to teach prescription writing with more care, and that will prove a simpler and more effective remedy than writing prescriptions in Latin.—*Medical Record*.

The presence in the sick room of flowers with delicate fragrance is generally beneficial. Certain colors are said to act favorably upon the nervous system. Red blossoms are stimulating, while delicate blue flowers are soothing.

The Times and Register.

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SOMETHING NEW IN THE TREATMENT OF WOMEN AFTER CONFINEMENT.

By R. J. NUNN, M.D., SAVANNAH, GA.

It is of course well known that women living in a condition most nearly approaching to a state of nature do not require the "days of lying up" after confinement, nor do they keep them, as do the more civilized races, or the cultivated classes of society.

Even among those living most luxuriously there will occasionally be found females who, after delivery, return with extraordinary rapidity to their usual conditions of health; but on the other hand there are those upon whom child-bearing seems to produce a very serious impression, and, therefore, it becomes a question, of no less scientific interest than economic importance, to indicate some means by which these weaker and more tardy recuperators can be put upon an even footing with their hardier and more vigorous sisters.

Is it not possible, with the means placed at our command by modern science, to shorten the time of the "getting up," and to improve the condition of the parous woman?

Such is the question that our investigators should answer. To this there should be some reply. Perhaps science has not yet arrived at a point where it can answer satisfactorily, but at least it can show that it is alive to the importance of the question.

The difficulty of finding a suitable subject for experiment must not be overlooked, for, of course, no one would think for a moment of making a woman an unwilling victim to such

an investigation; but to many there may fall cases like the following, in which a practical examination of this subject might be of great value, not alone to science, but also to the individual.

The subject of these notes was a multipara, who, after the birth of her first child, had suffered with prolapsus, accompanied with cysto and rectocele, continual backache, was generally puny, miserable and run down, and was at best a small, weakly woman, but withal a most determined character, as will be seen later.

One Sunday morning the patient was delivered, and immediately expressed her determination of going to her work on the next day (Monday). No persuasion could change her resolution. Being a widow, she declared it to be a question of bread for herself and her children, and she concluded she might as well die one way as another. It was to her a question of work or starvation.

Under these circumstances it was determined to adopt the following method of treatment: Twice daily the patient was to use a douche of a warm solution of boracic acid, immediately after which she was to report at my office; here the uterus would be thoroughly cleaned out with aseptic water and swabbed out with coamphenodine (camphor, iodine and carbolic acid), the faradic current used with a vaginal electrode, a tampon applied, and moreover an abdominal bandage was to be constantly worn.

The treatment was carried out for about two weeks, after which it was gradually discontinued, and in about a month the patient was discharged, apparently cured, not having had a

single untoward symptom, and declaring that her recovery had been better than after her first confinement, when she kept her bed ten days.

Since this course of treatment, which is now several months ago, she has been continually at her work, not having missed a day, enjoys better health than for years before, and considers herself cured of her prolapsus.

That this case has been of exceeding interest to me is my only apology for bringing it before the profession.

As a guide to any one desiring to make further trial of this method of treatment, it may be well to recapitulate the principles upon which it is founded, which are: (a) thorough antiseptics; (b) effective internal and external support; (c) local stimulation to hasten involution of the uterus and the return of other overstrained parts to their normal condition, and, (d) where necessary, the use of such appropriate general medication as may be indicated.

TWO CASES OF EXTENSIVE DESTRUCTION OF THE INTEGUMENTS WHICH WERE CURED BY TRANSPLANTING LARGE FLAPS.

BY WILLIAM B. HOPKINS, M. D.,
Philadelphia, Pa.

John J., aged thirty-two, was admitted to the Episcopal Hospital, November 9, 1888, with an extensive laceration of the elbow, involving skin, superficial and deep fasciae. The injury was caused by a centrifugal dyer in a sugar refinery. A month later, December 7, an ulcer occupying the entire circumference of the elbow, consequent upon the original loss and subsequent sloughing of integument, remained. It extended from the middle of the forearm to the middle of the arm, or about ninety-six square inches in area. The following operation was then performed: A vertical flap five inches wide and nine inches long, consisting of skin and superficial fascia, the base of which occupied the upper left pectoral region, and the edges of which were nearly parallel, was lifted

from the chest and sutured around the elbow. The limb being retained in the Velpeau position. Approximation of the enormous chest wound, though not complete, was materially facilitated by the emaciation following so severe an injury, and consequent relaxation of the integument of the chest. At the end of four days the flap was severed from its basic attachment to the chest, and the arm was released from its constrained position. There was epidermal sloughing of the flap, after its severance, which caused considerable anxiety, but its deeper layers were soon found to have formed a firm attachment. The patient remained in the hospital 279 days. The limb will be seen to have perfectly healed, to be amply covered with a soft, pliable integument permitting complete flexion and extension, pronation and supination, indeed, but that it is not quite so strong as the right arm, to have its functions entirely restored.

Case II.—Anton D., thirty-three years of age, a fireman, was brought to the Episcopal Hospital, October 25, 1892, with a railroad injury of his left foot. The extremity was so caught beneath the wheel that it had been completely flayed, but as none of the integument was lost it was brought together by sutures. Sloughing, however, occurred of the entire skin of the foot and ankle. December 4 a flap two inches wide was dissected from the sound limb, from the lower portion of the thigh to the lower third of the leg, a distance of fourteen inches, its base being left attached at the lower part. Carrying the lower portion along the outer side of the foot from before backward, the flap was reflected upon itself around the heel, and its remaining portion carried forward on the inner side of the foot to the toes. It was retained in this position by sutures carried deeply enough through granulation tissue to take a firm hold, and through the reflected lower borders of the flap occupying the sole of the foot. With a Y-shaped splint ingeniously devised by Dr. Ferguson, which kept the injured foot in a state of absolute fixation to the calf of the leg on the

sound side, the patient, with remarkable fortitude, kept his limbs in this constrained position for over three weeks (twenty-two days), when the base of the flap was detached, the latter having become firmly adherent to the foot. Advantage was taken of this opportunity to gain a little more integument by dissecting the flap further down the leg instead of cutting it off level at the root. The patient remained in the hospital 657 days, at the end of which period he walked without a cane and with a foot whose function was sufficiently restored to enable him to resume his laborious occupation of fireman on a vessel. The foot will be seen to be a very useful one, its plantar aspect being covered entirely by leg skin, as shown by the growth of hair upon it.

It will be observed in both of these cases that there is a singular freedom from the constriction of a tightly-drawn peripheral cicatrix, edema, impairment of function and other evidences of impeded return circulation. This factor alone places this method of closing large circumferential ulcers far in advance of the method by skin-grafting. Though the method of Thiersch and others, of allowing the flaps before severance at one or both extremities to become granulated, would have been applicable to the case operated upon six years ago, it is very doubtful if so long a flap as that transplanted in the other case would retain its vitality throughout its length, even if left attached at both ends.

INSOMNIA IN CHILDREN.

BY DR. A. G. WOLLENMANN,
FERDINAND, IND.

Insomnia is a frequent occurrence in children, and always symptomatic. In sleeplessness of children, therefore, must exist an anomaly in the function of childish organism, which the attending physician must a priori discover. Encephalitis, meningitis, hemorrhagia meningealis or cerebri, congestion of the brain and spinal cord are in many cases accompanied with obstinate sleeplessness.

Nervous affections are also mostly attended by insomnia, such as pa-

vor nocturnus, chorea and convulsions. In derangements of the digestive, respiratory or circulatory organs, in toxic and infectious affections; in scarlet fever, measles, parotitis and other contagious diseases; in gastritis and in the dentition periods of children we have often to combat with insomnia. Helminthes, urine retention, filthiness, sores, inflammation of the eyes and ears effect in children, not seldom, disturbance of their night's rest.

Concerning the therapy, it must direct itself to the radical evil, and with the disappearance of the main sufferings a quiet, refreshing sleep will follow the symptomatic sleeplessness.

In such cases which are caused by encephalitis, meningitis, hemorrhagia meningealis or cerebri, congestion of the brain and spinal cord, we must forbear all hypnotics and the "Nil nocere," est conditionem primam.

In mere nervous insomnia the physician has not such frequent opportunity to test his ability; as in those instances, unless they appear in a severe form, home remedies or the "help in need" patent medicines are taken refuge in, or advice is asked of some old lady or of some wise midwife, which is without doubt exalted above all else, faithfully executed, and the existence of the young worldly inhabitant has often to undergo a real fire-ordeal. Through whisky punch, laudanum, paregoric, decoction of poppy heads and other devil's stuff, the otherwise sprightly awakened child is made an idiot. This execrable, foolhardy, pernicious quackery has already caused more ruination and mischief amongst little children than all epidemics are capable of doing.

In two cases of pavor nocturnus (the latter had been treated with home remedies for a length of time) that I shortly had the opportunity to attend, trional rendered me very good service.

In the first case I prescribed in the beginning the formula of Dujardin Beaumetz' highly recommended medicine for this disease:

R. Aq. Chloroformii
 Aq. flor aurant.
 Aq. tiliac, aa 1½ ounces
 Kali bromati, 1 scruple.
 Syrup diacodii, 1 ounce.

although without success.

Then I tried trional. I gave it to the first child, whose age was 2 1-2 years, in doses of 7 grains. Every evening after supper the remedy was given to the child in hot milk or molasses. The first three nights but little effect was noticed; nevertheless, the remedy was continued. During the fourth night the sleep was perfectly quiet and without the least interruption. The same dose was given the child for a fortnight. Pavor nocturnus never returned, not even after the remedy had been discontinued. I made the same observation in the second case. Injurious after-effects I observed none. Pavor nocturnus is no infrequent disease of children, and the consulting physician has often to battle against this stubborn affection with great difficulties. This condition, which exchanges the time of physiological rest into that of excitement, effects after some duration a very injurious influence on the mind and body of youthhood. Trional seems to be a sovereign and a not injurious remedy to combat this disease in children. In nervous disturbances of nights, during the dentition periods, I often had the opportunity to learn the worth of this hypnotic.

A ten-year-old patient whom I had under treatment for chorea, and who had very restless nights, hardly being asleep, starts as from some dreadful dream, or as if frightened from nightmare; I also prescribed to the best satisfaction trional. A quiet and refreshing sleep set in during the entire night, after the taking of one of these powders.

According to my observations, I consider trional one of the best, most reliable and least harmful hypnotic for children.

At the longest, 15 minutes after the administration of a dose a beneficial, physiological sleep occurs. The intellectual, respiratory and circulatory functions seem not to be affected from this remedy.

Trional is given in the following doses:

1 month to 1 year—3-6 grains.
 1 year to 2 years—6-12 grains.
 2 years to 6 years—12-20 grains.
 6 years to 10 years—20-24 grains.

In some cases, by long administration, hematoporphyrin in the urine may appear. If the urine becomes cloudy, about one drachm bicarbonate of sodium should be given. If a long administration of trional is necessary, then it should be suspended for some days, after it had been given two weeks. The patients should drink freely of lemonade or citric acid sol. to facilitate its elimination.

KEELEY CURE ENFORCED BY LEGISLATION.

One of the latest freaks of legislation is an effort to enforce the Keeley Cure remedy in the treatment of the alcohol habit by law. The State of Massachusetts is distinguished for its conservatism in legislation, and yet its Legislature is gravely considering a bill to compel the employment of the Keeley Cure in the treatment of patients in the Massachusetts Hospital for Dipsomaniacs. This ridiculous attempt to govern the methods of treatment of a disease by statutory laws in one of the oldest States of the Union creates much comment, and will probably end in total discomfiture of the advocates of this scheme for popularizing an alleged "remedy" for inebriety not recognized by the medical profession.

The Boston Budget tells of a genial Harvard instructor, who, with his family, had been spending the winter in Rome. The other day a Boston friend received from him the following letter:

"My Dear —: You will be glad to hear that I am well and enjoying myself. But Mrs. X and the children have all been sick—taking advantage of the fact that there is a doctor here who charges only a dollar a visit."

"Bridget, have you cracked nuts for the dessert I want to make?"
 "Yis, ma'am; all but thim big wal-nuts, an' it'll take stronger jaws than mine to manage them; but I got troo wid de others all roight, ma'am."—Harper's Bazar.

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DERANGED PHYSIOLOGICAL CONDITIONS IN VARIOUS STAGES OF LIFE.

The human-being, like all animated creatures, has its definite stages of existence—infancy, childhood, manhood and senility. To those who have consecrated their lives to the healing art, those divisions in stages of development and decline constitute a study of most profound interests. Each one in marked degrees manifests its singular susceptibility or its resistance to various disturbed conditions of health.

During the infantile period the impressionable system is subject to many abnormal conditions which seem in some manner to be cleverly associated with the processes of evolution.

The wayward child, yielding to ungovernable instincts, is often a sufferer from conditions arising through indiscretion or want of judgment.

After puberty is reached his whole

character is changed; many a stupid, indifferent lad then develops faculties for application that he never before was supposed to possess. He is now fully conscious of the sexual impulse, the immediate indulgence of which will yield to him a series of information unknown before.

Then comes the stage of reversion—physically, at least—to the primitive state. The stature diminishes in size, the teeth fall out, the hair is shed and locomotion becomes uncertain.

Every epoch of life has its infirmities; and though there are instances in which there are deviations from the general rules, a knowledge of this fact often enables us to make a safe forecast.

As we watch the growth of the child from the cradle onward it would be well if we carefully separate those deranged physiological conditions which essentially are a part of bodily evolution from actual disease. Many infirmities of early life disappear of themselves as the body matures. It would therefore be illogical to force remedies for those conditions from which it used to be said "the child will outgrow." Nature, however, is by no means perfect in her operations, and here, under many circumstances, the aid of the practitioner is sought on the journey through life for conditions not actually dependent on disease, but rather faulty action on the part of the physiological machinery, which need for its repair the trained hands of the cultivated physician.

ILIAC ABSCESS—ITS TREATMENT.

Tumefaction in the right iliac fossa arises from so many diverse causes that in order for one to treat it on anything like scientific lines, definite knowledge of the anatomical structures and their relations, besides pathological manifestations in various disordered conditions, is indispensable. An "iliac abscess," or an "iliac tumor," is an exceedingly ambiguous term without any definite meaning.

An iliac abscess, as we may suppose, succeeds in consequence of inflammatory changes; but to ascertain just what course these depend on is the difficulty which must be surmounted before we can proceed with definite treatment. Some of these depend on pathological changes within the cavity of the peritoneum, as in appendicitis, ovarian abscess, pyelonephritis, etc., while others are quite outside of the serous membrane, as those which commence in Potts' disease or in the iliac plate, and those which are dependent on an infective lymphangitis; the latter, though not common, is of special interest.

It begins by an inflammation in any of the absorbent vessels, from the foot upward. As inflammation extends upward the limb becomes quite helpless and exceedingly painful; finally, we will find its advance upward arrested, in the iliac fossa, and we will have a phlegmonous angioleucitis, with an acteno-phlegmon deeply lodged under the iliacus muscle. The centre of suppuration is situated in the midst of an atmosphere of cellular tissue between the iliac fossa and muscle sheath.

In all these cases of gradual development the predisposing cause is a tubercular diathesis. In diagnosis, if we depend on the temperature alone for differentiation, we may often be deceived, for very frequently, in deep-seated chronic suppuration, there may be no marked thermal disturbances.

The general principle on which we act in the presence of pus is to evacuate, though it is well to know that there are many in whom a small pus accumulation may disintegrate and disappear by resorption.

BISMUTH PREPARATIONS.

Dr. J. W. Wilcox, of New York, read a valuable paper on the above subject before the Clinical Society of this city, December 15, 1894. He said: "Bismuth is by no means a new remedy.

"Physiologically, the drug produces practically no appreciable phenomena. Of the pharmacopoeial preparations of bismuth, the subnitrate

and the subcarbonate are the ones most in use. The former should not be prescribed in a mixture with sodium bicarbonate, for sufficient carbon dioxide may be generated to force the cork out of the bottle. The citrate and the bismuth and ammonium citrate are eligible preparations, but certainly are not so extensively used. The subgallate enjoyed a brief reputation as a remedy for fermentative dyspepsia when lauded by Flint a few years ago, but for this purpose other remedies have been found more useful. Of quite as much importance as the establishment of the value of bismuth when given internally is the discovery that it will form definite chemical combinations with salicylic acid, phenol, betanaphthol and pyrogallol. Bismuth salicylate has deservedly become popular as an intestinal antiseptic, the decomposition taking place in the small intestine, the salicylic acid being excreted in the urine as salicyluric acid. The Phenol and Betanaphthol-Bismuth are mostly decomposed in the stomach into phenol or naphthol bismuth. Whatever may pass into the small intestine, in the upper portion, may still be decomposed, so long as its contents are acid. The phenol is absorbed from the intestine and appears in the urine as sulphocarbollic acid, making its presence known by the change in color to pale, or darker, olive-green, and chemically by the diminution or absence of sulphate (barium chloride test). The naphthol, however, is only slightly eliminated by the kidneys, by far the greater portion being discharged, unchanged, in the feces. Tribromophenol-Bismuth is a further example of this peculiar combination. The tribromophenol of itself possesses great antiseptic properties and is said to be nontoxic. Its rather sweetish taste and astringency are also advantages. Pyrogallol-Bismuth resembles the salicylate in that decomposition takes place only in alkaline media. Since it has been shown that betanaphthol will destroy certain micro-organisms *in situ*, and it is a clinical fact that phenol, tribromophenol, and presumably pyrogallol, possess antiseptic properties, so far as the di-

gestive tract is concerned, the importance of these combinations is seen to be very great. The combinations are valuable not only because they possess the soothing effect of the bismuth, but as well because the disadvantages of the single drugs are overcome. Phenol, if given alone, quickly gives rise to symptoms of carboloria, as stated above. If administered as Phenol-Bismuth, the decomposition takes place slowly and no toxic manifestations are noted. Betanaphthol of itself is markedly irritating both to the stomach and intestines. When administered as Betanaphthol-Bismuth this property is markedly lessened. The combination of bismuth with tribromo phenol apparently increases the antiseptic properties of the latter. Conclusions:

"1. In many diseases of the digestive tract, bismuth is useful and necessary.

"2. Of the preparations of bismuth, the organic compounds are preferable.

"3. The treatment by intestinal antiseptics of infectious diseases, in which the early manifestations are in the alimentary canal, is a real advance in therapeutical practice.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

SOME CORRESPONDENCE RELATING TO RHEUMATISM AMONG ELECTRIC-LIGHT WORKERS.

Last winter, while engaged in some experimental work in the laboratory of an electric light central station, I had several talks with the janitor of the building, a man about 60 years of age, who had in his time been a great sufferer from rheumatism.

He was very much interested in the subject, and said that for 30 years he had never been long free from rheumatic pains, until the last three years. During these three years he had been employed in and around central stations, and had

been free from rheumatism. He asserted that not a single workman in the station had the disease, and it was the general belief that the immunity was due to the influence of electricity from the dynamos.

The facts were made the subject of a letter to a trade journal having a large circulation among electric light and power interests, and an attempt was made to collect data from men of practical experience in this field. Every electro-therapeutist is aware that many cases of rheumatism do well under some form of electrical treatment, although cases are met with which resist electricity completely. But in central station work there is no direct application of electrodes, etc., the workmen simply performing their duties in an atmosphere highly charged with very powerful currents from the dynamos and wires. If such an atmosphere exerts a remedial influence upon the disease in question we ought to investigate the matter fully. Theoretically we can imagine that not only rheumatism, but a multitude of other states of ill-health, would be benefited by a residence in an atmosphere that conduces to molecular and functional activity. In a central station the individual would be subjected to an exquisite electrical bombardment, perhaps more effective in some ways than sun baths, or climatic change, or what is already attempted in the limited application of the ordinary electric light to therapeutic purposes. The sun-parlor idea is carried out extensively in balmy winter resorts for invalids, and similar "parlors" or large rooms could be fitted with the equipment of central stations, and guests in hotels, hospitals, sanitariums, etc., could, amid appropriate surroundings, derive the benefit of such a residence without joining the ranks of linemen and electrical engineers. If there is real and extensive therapeutic value in the electric light, and even more value in the charged atmosphere of the dynamo room, then it is a simple matter to create the favorable conditions at will, everywhere, in establishments where health is systematically furnished on a large scale, or in

the private homes of such as can afford it.

Such a vitalizing atmosphere would appear to be a boon to consumptives and chronic cachexias of various sorts. The suggestion is full of possibilities. Two of the replies received follow:

To the Editor of the Electrical Review:

I saw in your paper an article asking for information in regard to what effect dynamos have on persons who have rheumatism. I will give you my own experience, and if it will be of any use to your correspondent I shall be glad.

I was born and raised in Massachusetts and can hardly remember the time when I did not have rheumatism. From the age of 10 to 19 years I suffered intensely with it. Then I came to San Antonio, Texas. For two years I was free from it, although out of doors in all kinds of weather. Then it returned again. About this time I obtained work in an electric light station in Galveston, Texas, which was the first one in this State, I believe.

For four years I was constantly at work in this line, two in Texas and two in Detroit, Michigan.

During all this time I was not troubled with rheumatism.

After this I was four years on a ranch in Western Texas, in the most healthful part of the State. Here the rheumatism returned again, but not as bad as when I was a boy in Massachusetts.

For the past six years I have been again employed around dynamos, and do not have rheumatism, although it is a very common complaint here and I am exposed to all kinds of weather.

I am not around the dynamos to exceed two hours out of the 24. I shall be glad to answer any questions your correspondent may wish to ask.

Yours respectfully,

CHAS. H. EDDY.

Superintendent Electrical Department of the Brenham Compress, Oil and Manufacturing Company, Brenham, Texas.

This letter is very explicit, and is certainly very conclusive so far as

Mr. Eddy's own case is concerned.

His report covers a sufficient period of time to possess a definite value. The next letter is from a physician. To the Editor of the Electrical Review:

An article of inquiry in your journal under the heading, "Will Electricity Cure Rheumatism?" raises one of the liveliest issues in therapeutic electricity, and one upon which some very excellent work has been and is being done. Dr. Monell asks for information from central station people as to whether or not they have known of chronic rheumatism being cured while the afflicted person is working about dynamos, and whether employes of central stations are blessed with an immunity from this troublesome and obstinate malady. While we are waiting for any data upon these points, it would be interesting to discuss the status of the subject among electro-therapeutists and electro-physiologists.

D'Arsonval has reported some very interesting results of exhausting researches. Without following his work his deductions may be given. He found that electric currents, particularly those of the high frequency alternating variety, exercised a most stimulating influence on the movement of protoplasm; that they vastly increased the elimination of urea and carbonic acid gas, and correspondingly increased the consumption of oxygen. To the physiologist such an influence means a quickening of every vital function. Protoplasm may be considered the unit of life, if the term be applicable. Upon protoplasmic evolution depends life itself. The elimination of urea and carbonic acid gas from, and the consumption of oxygen in, the tissues are the essentials of health. Without going into a controversy upon the pathology of rheumatism and many of the nervous disorders called neurasthenias, it may be said that diseases of these classes are due to faulty nutrition. A general summing up may be made in the statement that high frequency alternating currents act as stimulants to nutrition, and rheumatism is primarily due to bad nutrition; ergo, electricity would seem to be indicat-

ed provided it is intelligently applied.

There is no doubt that very excellent results are being obtained at the hands of those who are competent to handle the current.

Incidentally, a thought or two upon the general use of electricity in medicine and surgery may not be out of place here. In physics electricity has come to be one of the exact sciences. Less has been done in the therapeutic use of electricity than in any other direction. This is due to the necessity on the part of the investigator to know not only the physiological action of the current in all its varieties and under all conditions, but the pathology of the cases in which he purposes to use it. Our physicists are not physiologists or pathologists, and our physicians are not physicists. It goes without saying that these two branches of knowledge to be utilized must be combined in any intelligent investigation.

This condition is being brought about by a number of medical men in the country now, who have gone to work upon the physics of electricity.

A few foreigners have advanced considerably in this direction, because the best men abroad are in the universities and have access to the physical and electrical laboratories of their institutions, and they have profited by their opportunities.

Going back for a word upon the original subject of this note, I may venture to suggest that the data which Dr. Monell asks for will be valuable, not in discovering whether electricity may be tried in the treatment of rheumatism, but whether the theory advanced by a leader in this field of investigation can stand the light of experience.

J. ALLAN HORNSBY, M. D.

If every physician who reads "The Times and Register" would obtain and report data from the superintendents of electric light stations in their immediate vicinity much valuable information might be collected. The purpose of my original inquiry does not seem to have been understood by Dr. Hornsby. It was quite apart from the ordinary therapeutic appli-

cations of electricity to rheumatic affections, and related simply to the questions, "Do men who work in dynamo rooms obtain permanent relief from rheumatism, and is there any difference between continuous and alternating currents in respect to the relief noted?" It is well known that certain occupations tend to protect the workers from certain diseases, but in the case we are considering curative effects (if any there are) can be easily sequestered from the actual occupation, and the dynamo-parlor idea can be utilized in practical therapeutics, along with the galvanic, faradic and static methods already employed.

S. H. MONELL, M. D.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

THE SURGICAL TREATMENT OF CANCER OF THE STOMACH.

This author, after a careful review of the literature on this subject and a critical study of cases which have come under his own observation, draws the following conclusions: 1. The treatment of these tumors of the stomach differs in no respect from the treatment of carcinoma in any other situation, and is entirely surgical. 2. Early operation is to be recommended—even before the tumor is palpable, if this is possible. 3. Examination of the patient should be made only during deep narcosis. 4. The exploratory incision may give the first definite diagnosis. 5. Those cases should be recommended for resection of the pylorus in which the tumor is freely movable and there is no surrounding metastasis. 6. Where these conditions are absent a fistula should be formed between the stomach and the jejunum. 7. The knife should not be used as a last resort when the patient is enfeebled. 8. Such conditions would increase the mortality.—St. Petersburger medicinische Wochenschrift, 1894, No. xlix. By Dr. Klemm.

SUPRAPUBIC CYSTOTOMY IN CHILDREN.

Folinea (Rif. Med., February 20, 21, 1895) reports seven cases in which he performed suprapubic cystotomy for stone. The average age of the children was a little over 3 years. Complete cure followed on an average in thirteen days after the operation. Although the number of cases is small, the author feels justified in concluding that suprapubic cystotomy is an operation which may be performed on children with good results; that one ought in these cases to adopt complete suture of the bladder, provided that viscus be in a healthy condition; in chronic cystitis, renal mischief, and vesical hemorrhage the author would not sew up the bladder. As a rule a double suture suffices, since the bladder forms a firm cicatrix. Folinea thinks that in children suprapubic cystotomy should be preferred to any other operation for stone. His seven cases all did well.

A NEW DIAGNOSTIC SIGN OF GASTRIC CARCINOMA.

D. D. Stewart, M. D., of Philadelphia, writes an article in the Medical News of February 16, in support of the conclusions of Boas, viz: that lactic acid is not to be found in the stomach contents during any stage of digestion except in cases of gastric carcinoma. In making the test it is necessary first to wash out the stomach and then give a trial meal which contains not the slightest trace of lactic acid or lactates. Such a meal Boas found could be made of a tablespoonful of oatmeal flour to a litre of water made into a thin gruel seasoned with salt.

The sources of error and the lack of delicacy in Uffelmann's test lead Boas to adopt another based "upon the fact that when substances containing lactic acid are carefully heated with oxidizers such as manganese dioxide and sulphuric acid, the lactic acid is decomposed into formic acid and acetic aldehyd." The presence of the aldehyd is determined by conducting it into the presence of an alkaline solution of iodine when iodo-

form is produced. As ketone, alcohol and carbo-hydrates also yield aldehyd when treated with oxidizing agents, these must be eliminated before making the test. The details of the test are not given, but may be found in Boas' paper. Further observations in this line will be awaited anxiously by the profession because of the immense importance of early diagnosis in cases of gastric carcinoma.

TREATMENT OF APPENDICITIS.

At a recent meeting of the College of Physicians of Philadelphia a paper was read upon the treatment of appendicitis. Some of the best known men in the profession took part in the discussion and altogether the facts given are of the highest value. Dr. McBirney, of New York City, stated that medical treatment of these cases is always and invariably futile, and that in many instances an attempt at such treatment places the surgeon eventually at a distinct disadvantage because of the ravages which have been produced by the disease before he has had an opportunity to operate. He did not think it necessary to empty the bowels before operating. The appendix was the source of septic infection from the very beginning of the inflammation. He urged the removal of the appendix as early as possible before the general system has become infected; preferring, however, in the majority of cases to wait 24 to 48 hours until the acute symptoms had passed by before operating. He challenged any medical man present to offer a plan of treatment which could be shown to have any distinctly favorable influence upon the disease.

Dr. William Osler, of Johns Hopkins, said that too many appendices were removed. He believed that while many cases required operation many are unnecessarily operated upon. As a result of a large number of post-mortems made by him he was positive that acute appendicitis could occur with entire cure, without operative interference.

Dr. John Ashurst took the ground that Dr. McBirney was altogether

too advanced in his views in regard to operations. He quoted a number of cases in which he had seen active medicinal measures produce cures, and he protested in the name of conservative surgery against the extreme views entertained by the first two speakers, stating that, in his experience, the application of ice over the right iliac fossa and the administration of opium until the respirations dropped to 12 a minute had removed acute inflammations of the appendix in a large proportion of cases. He did not for a moment deny that operation was often needed, but he did assert that it was by no means indicated as a measure of first resort in every case.

Dr. S. Weir Mitchell said that he had seen neuroses and other nervous complications follow the operations for appendicitis. He knew of cases in which the pain and discomfort in the abdomen following the operation were so excessive as to incapacitate the patient from all employment and to render the remedy worse than the disease.—Nat. Med. Review.

THE TREATMENT OF BONE AND JOINT TUBERCULOSIS.

The author reports 15 cases, of which 14 are cured and one remains under treatment. In eight there was primary union, in four cases secondary union without suppuration, while in two cases there was a slight amount of pus. These results were obtained by the use of a 10 per cent. glycerin emulsion of iodoform, which the author used for its well-known specific action in tuberculous cases. The author opens the joints, removes all fungous, tuberculous masses and necrosed tissues, washes out all the pus, removes necrotic bone and sequestrs, and then pours over the entire tuberculous area a 10 per cent. iodoform glycerin emulsion. After the joint has been opened and the diseased tissues removed he unites the joint capsule by a buried suture, the superficial tissues by an ordinary interrupted suture; the wound is not drained but firmly closed. Over the wound he lays a small amount of iodoform gauze held in place by ad-

hesive plaster, and afterwards a dressing to hold the joint firmly in a fixed position. The cases so far include elbow, ankle, foot and hip-joints. When a joint is only partially involved, after opening it he puts into the sound portion a tampon of iodoform gauze; when all diseased tissues have been removed he washes out the wound, removes the gauze and floods the whole cavity with iodoform emulsion, closing the wound by means of buried and superficial sutures without damage. The use of the same method in the treatment of other wounds he has found of value in securing primary union.—Archiv fur klinische Chirurgie, 1894, vol. xlix., No. 1.) By G. Neubauer, M. D., of Kiel.

COMPOUND TINCTURE OF BENZOIN IN SURGERY.

Dr. J. L. Garland Sherrill highly recommends compound benzoin tincture in cases of injuries about the hands, especially those by machinery. The manner of application is as follows: After careful cleaning and disinfection of wound and complete arrest of hemorrhage, a layer of absorbent cotton is placed around the wound, over which the tincture is poured until the cotton is saturated. This forms an air-tight aseptic coating after evaporation of the alcohol. This dressing is claimed to be very advantageous in the practice of the country physician, because it need not be frequently changed and can sometimes be left on for a week without inconvenience. If it becomes loose a little more benzoin tincture may be added by the patient.—Amer. Therapist.

The Buffalo General Hospital has received the munificent gift of \$55,000, which is to be applied to the building of a new structure. This royal donation was made by four of Buffalo's most philanthropic women. Mrs. George B. Gates contributed \$40,000 of the amount, and her three daughters—namely, Mrs. William Hamlin, Mrs. Charles W. Pardee and Miss Elizabeth Gates—each added \$5000 to the sum.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

SERO THERAPY.

Serotherapy consists in the injection of natural or artificial liquids whose composition approaches that of the blood serum. The method may thus be divided into:

1. Serotherapy by artificial serum.
2. Serotherapy by natural serum, derived from blood or different animal organs.
3. Serotherapy by bactericidal serum.

ARTIFICIAL SERUMS.

These were first used in 1865 by Couteau, under the name of hypodermoclysis, to dilute the blood of cholera patients. The following was the solution used:

R	Sulphate Soda	18 gr.
	Phosphate Soda	5 gr.
	Distilled Water	100 gr.

Five grammes to be injected for vomiting, diarrhea, etc. Dastre and Laye had proved by experiment that the method was useful in infectious disease. Cheron says, "All hypodermic injections produce identical effects, whatever may be the liquid introduced under the skin, provided that it is not poisonous and is not locally harmful."

The method, according to Cheron, increases the activity and regularity of functions of the nervous system, stimulates the heart, relieves arterial tension, brings about globular renovation of the blood, excites the digestive functions and accelerates nutrition generally.

The technique is the same for all hypodermic injections, observing all antiseptic precautions. The liquid should be at about 30 degrees to 40 degrees centigrade, the quantity injected at one time should be from 5 grammes to 120 grammes, and should be given every day, or every other day, very rarely two, four or six on same day. The injection should be made very slowly and gently in the sacro-lumbar or retro-trochanteric regions. The following formula have

given the best results:

Chloride Sodium	2 gr.
Sulphate Soda	8 gr.
Phosphate Soda	4 gr.
Water	100 gr.

or the same with the addition of one grain crystallized carbolic acid. This method is recommended in anemia from hemorrhage, chronic anemia, leuhemia, leucocytosis (Cheron), neurasthenia, debility, tuberculosis, mal-nutrition, gout, migraine and pelvic inflammations.

Prog. Med.

Treatment of "Tic douloureux" by injections of antipyrine and cocaine have proved satisfactory.

The solution used is:

Antipyrine	4 grammes
Cocaine mur.	3 c. grms.
Water	10 grammes

It is necessary to inject several syringefuls into the face. Great edema is produced, but it soon subsides.

A woman, 60 years, went to Lyons for resection of nerve. She was relieved after use of about 30 injections, distributed over the painful points.

A second case was also cured.

—Rev. Therap. Med. Ch.

TREATMENT OF ANGINA PECTORIS.

Angina is one of the numerous pathological occurrences which may supervene in the course of cardiac sclerosis, which is the condition represented by the classical symptoms of angina pectoris.

What should be the treatment during a paroxysm? Drugs which will produce a rapid dilatation of the blood vessels are indicated. Morphine is one of the best, and should be given hypodermically, 1-6 grain to begin with. If this does not suffice, it must be repeated. Nitrate of amyl is quicker, and should be carried by the patient. Faradization of the cardiac region is useless. During the intervals between attacks nitro glycerine should be given, and if the iodides are used that of sodium is preferable. Tobacco, alcohol fatigue are avoided, the diet should be good, but not stimulating.—(Rev. de Therap.)

CYSTITIS CAUSED BY USE OF LARGE DOSES OF ALKALIES.

Alkalies used in gastric affections may be the cause of cystitis says M. Mathew. In one case he saw on the second day of treatment vesical hematuria produced, the first time from 12 grammes of bicarbonate soda and 3 grains magnesia given in several doses; and the second time by 4 grains magnesia and 6 grains prepared chalk. He thinks, therefore, that alkalies should be given with great care to persons having any bladder weakness. In any case if unfavorable bladder symptoms are observed, alkalies should be suspended at once. The amount should be regulated by the acidity of the urine.—(Rev. Therap.)

ANTIPYRINE IN LARGE DOSES IN NERVOUS AFFECTIONS.

Anderson recommends it in hysterical crisis, chorea, etc. It is not dangerous if used in ascending doses. The observer has not seen any untoward effects from its use.—(Rev. de Therap.)

SIMULTANEOUS CURE OF MENTAL AND SURGICAL AFFECTIONS.

Dr. Rouly relates the history of two insane persons attacked by surgical afflictions in which treatment of the local disorder seemed to influence the mental condition.

In the first case he operated on a woman attacked with amento mania, following a painful affliction of the genitalia, consisting of gangrenous ulceration of the uterine neck in its whole extent. The cure of this brought about a cure of the mental disorder in three months. Hallucination completely vanished, and the patient re-entered society.

In the second case the patient was a man of 45, suffering from impulse and obsession, due to jealousy. These, rebellious to other means, yielded to dilatation of an urethral stricture, so chronic that secondary bladder symptoms were present.

TREATMENT OF INFLUENZA.

Plicque (Press Medicale, February 6, 1895), adheres to the division of the various forms into thoracic, nervous, gastro-intestinal and cardiac, but points out that it is not rare for the different forms to be combined together or to follow one another. Treatment should first be prophylactic. When several in one family are attacked they should be isolated in separate rooms, since when together they appear to infect each other. In common cases without special complications, the patient should keep his bed for two or three days, and keep to his room for eight days; otherwise relapses and nervous complications are liable to arise. The medicines recommended by Plicque are antipyrin 30 to 60 grains, tincture of aconite 10 to 30 drops per diem, quinine and coffee. Antiseptic treatment to the nose, mouth and pharynx is important—boracic acid gargle, boracic vaseline to the nasal cavities, and great care of the mouth. This treatment does much to avoid complications and perhaps bronchopneumonia. For the spasmodic cough in thoracic complications he recommends: Tinct. belladonna, tinct. aconiti, tinct. drosera aa m. 30, tinct. myrrh oz. ijss. m 20 to 30 per diem. Congestion of the bases of the lungs may be relieved by dry cupping; blisters should be avoided. In respiratory catarrh emetics are useful in children and adolescents, and chlorhydrate of ammonia. Nervous complications with excitement and delirium are best treated with bromide of potassium, 30 to 60 grains per diem. For nervous depression he recommends equal parts of tincture of kola and coca. For the cardiac form Plicque advises dry cupping, sinapisms, subcutaneous injections of caffein and ether or of camphorated oil (sterilized olive oil oz. ijss, camphor 30 grains). In the gastro-intestinal form, emetics are good in young subjects at the onset, and saline purgatives; if much diarrhea, intestinal antiseptics (salol, naphthol and salicylate of bismuth). During convalescence high altitudes are better than sea air.—Brit. Med. Journal.

INFLUENZA.

A. Claus (Flandre Med., March 7) considers that the specific pathogenic microbe of influenza is not yet discovered. Some attribute it to a diplococcus, others to a streptococcus; others think that it is due to microbes normally present whose virulence, under epidemic influence, has been greatly augmented. The infectious nature of the disease is generally conceded. The microbe, whatever it be, secretes toxins which cause in the blood or lymph vessels either simple congestion or free inflammation. These states determine consecutively in the nerve elements, fibres or cells, compressions or irritations whose painful manifestations will form one of the most constant symptoms. Prominent amongst these is headache, often accompanied by trigeminal neuralgia. More rare are neuralgia of the cervical plexus, intercostal neuralgia and sciatica. Rachialgia is almost universal and appears abruptly, a feature which the pains possess in common. The latter are migratory, are difficult to define, are not lancinating, and are rarely spontaneous, yet the patient is kept immobilized by them. Pressure is painful yet their seat cannot be localized. As to the nature of the changes produced by the toxins in the nerve elements, Claus believes that they vary from a simple nerve congestion (producing a neurosis neuralgia) to real anatomical changes (subacute neuritic or chronic neuritic neuralgia). He also believes the neuralgias to be of a diathetic nature since they present the features of that class of neuralgias—namely, diffuseness, bilateral distribution, erratic nature and amenability to treatment aimed at the diathesis. The influenza neuralgias present these characteristics since they migrate with extraordinary facility, and often occupy several nerve trunks at once. The neuralgia is seldom seen on one side only, the cephalalgia, for instance, occupying the whole head. Whether these neuralgias are primarily of central or peripheral origin is still sub judice. As indicated above, Claus considers the diathetic element all important in

their etiology, age, climate, heredity having but slight influence. It is those who eat and drink too much—the gouty, rheumatic and arthritic—in whom these neuralgias are especially found. The accuracy of this is proved by the fact that the medicaments of most value rank in the order of their antiarthritic action. Such are antipyrin and salicylate of soda followed by remedies of lessening efficacy, as salipyrin, salol, agathin, phenacetin, exalgin, quinine, etc. Most valuable of all, according to the author, is salophen.

CHLOROSIS.

V. Noorden (Berl. klin. Woch., 1895, Nos. 9 and 10) discusses the pathology and treatment of this affection. The deficiency in hemaglobin is due either to its increased destruction or to diminished formation or to both factors. The theory based on increased destruction is unsatisfactory. If in the absence of biliary stagnation many derivatives of biliary and allied pigment are largely present in the stools, the destruction of hemoglobin is abundant; if few the destruction is small. The latter is true in chlorosis, and thus there can be no question of excessive destruction; therefore diminished formation of hemoglobin alone remains. As regards the absorption of iron, Bunge advanced the theory that iron holding nucleo-albumin can only be absorbed, this compound being destroyed in the alimentary canal of the chlorotic. But the increased decomposition products assumed for the destruction of this nucleo-albumin do not exist, and it has been shown that the livers of animals fed on iron salts contain abundant iron. As to the cure effected by iron, it is very improbable that it simply supplies the deficit because every chlorotic absorbs sufficient iron for the purpose. There is abundant iron supplied in diet as a nucleo-albumin, but this is not used probably owing to deficient function in the hematopoietic organs. Arsenic, of unquestionable service in chlorosis, acts by its stimulating action on the hematopoietic organs. The author is of opinion that iron only acts like many

other medicinal and hygienic agents by stimulating the hematopoietic organs, and he does not attach any importance to its relation to the hemoglobin molecule. Absorption from the alimentary canal in chlorosis is usually good. Metabolism behaves as in health. As to dietetic treatment, chlorotics who are wasted should receive a diet favoring the laying of fat. To those who are well nourished abundant nitrogenous food should be given. Any relation between alcohol and blood formation is highly improbable. The author lays stress on the first meal in the day containing plenty of albuminous matters.

THE PHARYNGITIS OF ALBUMINURIA AND DIABETES.

Garel (*Ann. des Maladies de l'Oreille*, etc., February, 1895) speaks of a form of pharyngitis which indicates the presence of diabetes or albuminuria. There are two forms of pharyngitis associated with these diseases, namely, the hyperemic and anemic; these appear to the author to be two stages of the same disease. In the dry or anemic form the mucous membrane may be of somewhat a grayish appearance, granular, often traversed by small vessels. It is only the hyperemic form which presents characteristic features. Sugar or albumen is then almost invariably found in the urine, whereas in dry pharyngitis they are only present in one-eighth of the cases. In this hyperemic pharyngitis there is discomfort in the throat, trouble in swallowing saliva, and the pharyngeal mucous membrane is swollen, hypersensitive and with excess of secretion. The voice is often a little husky. In 21 such cases the author found sugar in 10 and albumen in 11. In the former the age varied from 40 to 50, in the latter from 28 to 75. As regards the amount of sugar present, the state of the throat gave no indication, but the albuminuria, except in one case, was always slight. The author concludes that this hyperemic pharyngitis may be considered as the first indication of diabetes or albuminuria. It is almost pathognomonic.

TREATMENT OF MUMPS.

During a recent epidemic of mumps among soldiers, Dr. A. Martin successfully resorted to the following treatment: From the outset he instituted buccal antiseptics, which, when rigorously done, according to his observations, diminishes the chances of testicular complication. He, therefore, had his patients gargle and cleanse the mouth as often as possible with solutions of thymol, carbolic acid or very hot 4 per cent. boric acid solution. Besides, during the first days of the disease he administered antipyrin in daily doses of 2-3 grammes (30-45 grs.). This, he states, more rapidly effects the resolution of the inflammatory process than do sodium salicylate and other remedies; moreover, it acts more promptly on the fever and pain. In orchitis caused by mumps, pilocarpin subcutaneously in doses of 1 centigramme (1-6 gr.), repeated once daily, is said to have promptly diminished the pain from the first evening on, and to have lowered the temperature, which became normal on the third day. The swelling of the testicle disappeared between the eighth and tenth days. After the acute period of orchitis was passed, the patient was submitted to a tonic treatment (cod liver oil, nux vomica, cinchona extract, meat powder, sulphur baths, etc.) for the purpose of preventing testicular atrophy.—*Sem. Med.*

THE DIETETIC TREATMENT OF PHTHISIS.

The following suggestions by Dr. Henry P. Loomis (*The Practitioner*) are worthy of careful consideration:

1. Never take cough mixtures if they can possibly be avoided.
2. Food should be taken at least six times in the 24 hours; light repasts between the meals and on retiring.
3. Never eat when suffering from bodily or mental fatigue or nervous excitement.
4. Take a nap, or at least lie down for twenty minutes, before the mid-day and evening meal.

5. Take only a small amount of fluid with the meals.

6. The starches and sugars should be avoided; also indigestible articles of diet.

7. As far as possible, each meal should consist of articles requiring about the same time to digest.

8. Only eat so much as can be easily digested in the time allowed.

9. As long as possible, systematic exercise should be taken to favor assimilation and exertion; when this is impossible, massage or passive exercise should be undergone.

10. The food must be nicely prepared and daintily served—made inviting in every way.

Therapeutics.

IN CHARGE OF

DR. LOUIS LEWIS, Philadelphia.

ANTITUBERCULOUS SERUM.

Paquin (Jour. Amer. Assoc., March 9, 1895) maintains that horse blood serum may be rendered more antagonistic to tuberculosis than it naturally is. The author gives details of over 20 cases which he has treated with such serum. An increase of weight was noted. The cough and expectoration diminished, the appetite increased and the night sweats lessened. Even cases with large cavities showed improvement. The author maintains that the great prostrating debility first yields to the treatment. As to the preparation of the serum, healthy horses were taken and experimentally immunized against tuberculosis, the serum being obtained at intervals during immunization and experimented with on animals. As to dosage 10 drops of the serum were injected into patients, and subsequently 30, 40, 60, or even more drops were used. No reaction was noted, and no accidents except in two cases a benign local abscess appeared. The author thinks that the future of the serotherapy of tubercle is a very promising one. The preparation of the serum needs of course skill and care. It takes months to obtain the most efficient serum.

NUCLEIN IN DIPHTHERIA.

At a meeting of the Society for Medical Progress of the New York West Side German Dispensary, held April 14, Dr. William Jacobson read a paper on the use of nuclein in the treatment of diphtheria and other contagious diseases. For the introduction of this agent (which is a normal constituent of blood-serum chemically represented by 49 parts of hydrogen, 32 parts of oxygen, 29 parts of carbon, and six parts of phosphorus), he said we were indebted to the researches of Prof. Victor Vaughan and Dr. Charles McClintock, of the University of Michigan. Out of 200 cases of diphtheria, scarlet fever and measles which were observed during several months he claimed that there had been only nine deaths, and that in these cases the fatal result was due either to the fact that the nuclein injections were not made until the disease was too far advanced for any remedy to be of any service, to necessarily fatal complications, or to lack of proper care or other unfavorable conditions affecting the patient. The theory upon which nuclein was employed was that, as nuclein was found to a greater extent in the blood of healthy than in that of diseased persons, it was the real food upon which the blood tissues fed, and as such was nature's own antitoxin.

Nuclein was first tried on a girl four years of age, who was suffering from diphtheria. The agent was introduced into the system hypodermically and in a very small quantity. It was found that the temperature at first slowly rose, and then had a sudden drop. The pulse soon became normal, and in three days the child showed no sign of disease. The result was so successful that the treatment was resorted to in other cases, and with similar good results. "To treat fever," said Dr. Jacobson, "we must remove the cause, the toxins, and especially, as in contagions, the microbe and its poison. Nuclein is the substance to which the cell owes its resisting power, and if present in sufficient quantity the microbe and its toxine are prevented from attacking the cell, and are ultimately destroyed."

THE OPIUM INEBRIETY OF THE CHINESE.

An educated Chinaman, the Rev. Poon Chu, had occasion to address a San Francisco audience on the comparative evils of alcohol and opium as intoxicants. He stated that he had found one striking difference between the effects of the opium vice among his countrymen and those produced among Americans by alcoholic intemperance: "When the Chinese opium-smoker comes home he does not abuse his children and kick his wife; his wife kicks him." This happy hit "brought down the house," and was widely quoted as a specimen of Chinese wit.—*Jour. Amer. Med. Ass'n.*

ANOTHER NEW ELEMENT.

The discovery of Argon in 1894 has been followed by the finding of Helium in 1895. Up to the present time the existence of such a substance as the latter had been inferred only from a line D3 in the solar spectrum. That testimony, however, has now received a striking and absolute proof by the demonstration thereof of the element itself as a component of our terrestrial globe. The discovery was made by Professor Ramsay in the following manner: In his endeavors to discover whether argon combined with any other element he made some experiments with a rare earth that was stated to yield nitrogen on being attacked with sulphuric acid. As he had anticipated, argon was given off, and not nitrogen, but mixed with it appeared to be another gas. On further investigation this turned out to be the hitherto hypothetical substance helium, a conclusion which has been since confirmed by Professor Crookes. Professor Ramsay announced the above facts to the Chemical Society at their annual meeting, immediately after the Faraday medal had been presented to Lord Rayleigh for his work on argon. These distinguished men deserve all the praise that has been bestowed upon them for their important discoveries. In some quarters it is feared that their further search for

argoniferous compounds may be attended by disastrous results. Nitrogen, which is far more stable than argon, enters into the composition of our most powerful explosives. It forms, for instance, terribly dangerous combinations with chlorine, iodine, and bromine. Nitrogen is the chemical analogue of argon, and it follows that argon compounds will also be unstable and explosive. The task, therefore, which Lord Rayleigh and his colleague are commonly understood to be undertaking is in all probability one of extreme danger. This country certainly could not afford to lose two such distinguished men, and it is to be hoped that all unnecessary risk will be as far as possible avoided.—*Medical Press and Circular.*

THE ANALGESIC VALUE OF NEURODINE.

In *Therapeutische Monatshefte* Mering has recommended a new analgesic neurodine, the formula of which is:

and is a crystalline substance, very slightly soluble in cold water.

It has marked calmative effects, as shown in migraine, headache, rheumatism, trigeminal neuralgia, sciatica, etc., and also had antithermic action. Mering ranks it in the secondary list of antithermics, but considers it one of the best of the analgesic class. He gives it in doses of 15 grains. Lippe has also used it extensively, and says:

Neurodine may be given, and is well borne in doses of 50 centigrammes to 3 grammes, repeated several times a day. Tolerance is perfect. In a few cases diarrhea was caused. He thinks that phenacetine and antipyrine are superior to it in analgesic properties.

Rev. Ther. Med. Chir.

A NEW BACILLUS—"MADE IN GERMANY."

During the past week some of the leading London newspapers have announced with much noise and ceremony the discovery of a new bacillus. The pivot of their literary effusions

is a Central News telegram from Vienna. On inquiring into the matter we find, says the Medical Press, that their confiding editors have had foisted upon them nothing less than our old friend, the streptococcus pyogenes. The scientist whom they credit with the find is Dr. Marmorek, who is stated to be now in Paris with M. Pasteur, presumably with a view to bring the new coccus under the notice of the distinguished Parisian. We wonder what will be the feelings of the deluded editors when they learn that the streptococcus is an old, old friend. Any medical student who during, say, the last ten years, did not know some of the leading facts about that interesting organism would have courted rejection in his final examinations. The real truth appears to be that Dr. Marmorek has been experimenting in the direction of an antidote to the streptococcus and its effects upon the human body. A little reflection will show the utter absurdity of non-scientific writers attempting to deal with highly technical medical matters. The blind cannot lead the blind. One jocund editor goes so far as to call the streptococcus pyogenes a "simple-sounding complaint." Almost every week one meets with newspaper absurdities of this kind, which would be simply impossible under the supervision of a competent medical sub-editor.—Am. Druggist.

INFLAMMATION OF THE MIDDLE EAR OF INFANTS.

Dr. A. Hartman (*Deutsche med. Wochenschrift*) gives the results of investigations of this subject in the Institute of Infectious Diseases, Berlin:

1. Post-mortem examinations and examinations of the ears of living children establish the fact that 75 per cent. suffer from inflammation of the middle ear.

2. Inflammation of the middle ear can nearly always be determined by an otoscopic examination.

3. The symptoms of the otitis media consist of restlessness, elevation of temperature and loss of weight. Sometimes these symptoms are not present.

4. Very often the symptoms of otitis media are connected with broncho-pneumonic processes. Probably both processes are due to the same process, viz., aspiration.

5. Death can result in cases of otitis media, slow stone atrophy, or from an extension of the micro-organism into the cranial cavity (meningitis), or into the blood (septicæmia).

6. The inflammation of the middle ears of infants must receive treatment suitable for the varying conditions.

THE CHOLERA.

The cholera is very prevalent in various parts of China, including Hong Kong and the Portuguese possession of Macao, near Canton. The governor of Hong Kong has refused to declare a quarantine against Macao, despite the protests of many of the leading physicians of the city. The plague exists also in the northern part of the empire, and has been brought into Japan by the troops returning from China. In the Pescadore Islands, where the Japanese forces have been stationed awaiting reinforcements, there were over 800 deaths from cholera up to the middle of April. The epidemic is said to be now abating. In the naval station of Moji, in Southern Japan, there were many cases during the early part of March, but the disease has since been stamped out. It is feared, however, that much disease will follow the return of the Japanese troops from China.

DEATH UNDER NITROUS OXIDE GAS DUE TO TIGHT-LACING.

More than one fatality from tight-lacing has recently been noticed in our columns. In all conditions in which free respiration becomes a necessity, if the vital processes are to be carried on, tight-lacing means death. Of all states, that in which a patient takes an anesthetic is the one when absolute freedom of breathing is a necessity. Unhappily but few know this elementary fact in physiology, and hence the sad

death of a girl who had taken nitrous oxide gas at a dentist's rooms, and while recovering from its influence had a fatal attack of syncope. The statement is made that her stays were five inches too small for her natural body, a disparity of shape which, we imagine, the dentist might have seen and acted upon before he ventured to give the unfortunate girl nitrous oxide gas.—*Lancet*.

THE PASSING OF RED HAIR.

A writer in the *Lancet* says that he has noticed, during several years' experience in civil service examinations, that a diminishing number of the candidates have red hair, and he thinks this color of hair is becoming quite rare.

TO SAVE THE BABIES.

The French Government, despairing of any hope to increase the birth rate of that country, is now devoting its energies to saving those already born. The new law forbids, under a severe penalty, any one to give infants under one year any form of solid food unless such be ordered by a written prescription, signed by a legally qualified physician.—*Medical Herald*.

Miscellany.

THE INCREASE OF MEDICAL MEN IN GERMANY.

We referred in a recent issue to the number of medical men practicing in these islands, and in this connection drew attention to the figures contained in the new "Medical Directory." We now give some figures upon the same subject in respect to the profession in Germany. In November, 1894, there were 22,287 medical men practicing in the German Empire, 666 of whom had joined the profession in the course of the year. During the past eight years, 1887-1894, the increase in the profession in Germany was 32 per cent. During the same period the increase

in the population was only 10 per cent., or three times less than that of the medical men. But there may still be some more room for members of the profession in the Fatherland.—*Medical Press*.

PUBERTY IN INFANTILE HEMIPLEGIA.

Leblais (Publications du Prog. Med., 1895, These), states that observations made by him in M. Bourneville's clinic show that certain trophic changes associated with infantile spasmodic hemiplegia are only to be noted at puberty. Differences in the size of the testicles were noted in eight out of 29 boys examined. In seven of these the testicle on the hemiplegic side was smaller than on the sound side; in one it was larger. Retention of the testicle in the inguinal canal seemed to be more common than among normal children. Among the girls the only abnormally noticed at puberty was that in one case the mamma on the paralyzed side was hypertrophied. As a rule the hair developed at puberty less well on the paralyzed side, but sometimes the opposite was the case; in others the development took place unequally, but the inequality was not symmetrical; in others, again, development of hair was normal on the two sides. Puberty developed in the hemiplegic children at the same age and with the same phenomena as in healthy children.

AGAIN THE APPENDIX SUFFERS.

"And now, gentlemen of the jury," shouted the young lawyer, running his long fingers through his flowing locks, "now, gentlemen of the jury, I ask you as men and as citizens of this great and glorious Republic, if the spotless character of my client is to be permitted to suffer from the words uttered by that—by that—by that vermiform appendix who sits in the witness box with perjury stamped all over him?"—*Indianapolis Journal*.

Prescriptions.

ANTISEPTIC POWDER.

	Grams.
R Corrosive sublimate. ....	.0012
Boric acid. ....	.34
Tannic acid. ....	.60
Sugar milk. ....	.63
External use.	

DIPHTHERITIC PARALYSIS.

R Tincture nux vom.	1 to 4 drops
Sulph. strychnia.	1-65 grain
Water.	15 grains
Two to eight drops at each meal for child over four years.	

DESICCATED THYROIDS IN MYX- EDEMA.

R Thyroid of laud.	30 grains
Meulage	
Talc.	a a q s
Ft. pil.	ao xx
Dose one, three, or six pills per day.	

WHOOPING COUGH.

R Tinct. aconite root.	
Tinct. Bellad.	ad 10 drops
Cherry laurel water.	150 drops
Distilled water.	900 drops
Orange flower water.	150 drops
Syrup laeluraum.	30 drops

S.—Teaspoonful.

OZENA.

R Borax.	20 grms
Glycerine.	70 grms
Distilled water.	30 grms

Spray.

For Local Anesthesia:

R—Cocaine hydrochloride.	16 gr.
Resorcin.	16 gr.
Distilled water.	2 oz.

It is found that the use of this solution is not followed by the systemic disturbances that cocaine alone sometimes produces.—New York Medical Journal.

Sodium Salicylate in Cancer.—In a case where the bone had become involved, secondary to cancer of the breast, Aikman obtained decided relief of pain by the administration of salicylate of sodium in doses of 10 grains three times a day. Large doses of opium had been given in vain.—Glasgow Medical Journal.

Follicular Tonsillitis.—If seen early and no complications exist, Dr. Sajou's abortive treatment may be followed, viz: Ammoniated tincture of guaiac, one teaspoonful every two hours in sweet milk. If seen later, calomel, ten grains, and soda bicarb., twenty grains, may be given in three parts, one every three hours, followed

by castor oil and sodium sulphate. Dr. C. C. Slagle then recommends a mixture to be given, consisting of:

R—Pot. chlorat.	1 dr.
Ammon. mur.	1 dr.
Tinct. ferri mur.	4 dr.
Glycerini.	1½ oz.
Syrup limonis.	2 oz.

M. A teaspoonful to be used as a gargle and systemic remedy.

Professor Levy recommends the use as a gargle, every two hours, of the following:

R—Olei creasoti.	8 drops
Tinct. myrrhæ.	2 oz.
Glycerin.	2 oz.
Aquæ, q. s.	8 oz.

Guaiacol in Tonsillitis.—Dr. J. Harvey Raymond, of Chicago, reports that he has employed guaiacol topically in tonsillitis with great benefit. He recommends that it be used in full strength. It is painted on the tonsil by means of a cotton swab. It causes sometimes a good deal of smarting, but the relief obtained far more than compensates for this. Care should be taken not to let it run into the larynx. In many cases a few applications, sometimes only two, were sufficient to abort the attack. The temperature falls shortly after the application. In one case it fell from 103.5 degrees F. to normal in four hours. When the guaiacol is applied in a weaker form—say, 50 per cent.—it does not act so promptly nor effectively. Cocaine rather aggravates the smarting caused by the guaiacol. The throat is kept moist by means of troches of althea, guaiac, or gargles.—Dominion Med. Monthly.

Florida Medical Association.—The 72d annual meeting of this association will be held at Gainesville on Tuesday and Wednesday, April 16 and 17, 1895. The president of the society is Dr. J. D. Rush, of Apalachicola, and the secretary, Dr. J. D. Fernandez, of Jacksonville.

Dental Law in Nebraska.—The dentists of Nebraska have now a law, just enacted, by which the present State Board of Health is made judge of their fitness for practice. The law is a copy of the medical practice act, but made to apply to dentists.

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Original.

THE RELATION BETWEEN THE EMOTIONAL DISTURBANCES OF MASSES OF PEOPLE THROUGH THE OPERATION OF STRIKES, AND THE EXTENSION OF THE AREA OF MENTAL DISEASE.

BY EDWARD C. MANN, M. D.,
F. S. S., NEW YORK.

We would lay down as a general proposition, which just now is of startling interest to society, that all purely emotional disturbances of masses of people are attended with the development of a higher proportional degree of insanity. This has been seen frequently in the world's history during periods of religious excitement, and more recently, both in England and in this country, among the hypersensitive and emotional sections of society as the result of the operation of the Salvation Army. The latest force at work to extend the area of insanity is that of socialism and the operation of the labor agitation, which develops extravagant outbursts of excitement, reaching in some instances to temporary mania. The constant excitement and the presence of a ceaseless anxiety in respect to the well-being of themselves and their families must react in a very serious manner upon the nervous organization of the many individuals so affected, in periods of conflict between labor and capital, and we feel convinced that the closest connection exists between such emotional excitement of a high degree and serious brain disease. The recent socialistic movements will affect most injuriously a large class of minds among the working class, which are

mostly untrained and not armed against the reactionary power exerted by disappointments and failures, to which all social revolutions are doomed. Nor does the trouble stop with the masses themselves. Every woman among this class, who, during these periods of great emotional excitement, conceives and brings forth children, has her mind constantly swayed by the emotions of depression, reproach, remorse and despair, and the complexion of the mental future of her unborn offspring will beyond peradventure be unfavorably determined by the social excitement, and that child will be surely destined to struggle through the world laboring under the tyranny of a bad mental organization, and especially liable to disorganization of the cerebral functions and the development of insanity.

We have, therefore, two distinct ways in which the area of mental disease is extended among the masses as the action of a cause, that cause being socialism and strikes. Many will commit suicide to avoid the horrors into which their folly has precipitated them. By small increments of modification any amount of modification may in time be generated, and by periodical phases of emotional disturbances of masses of people we are destined to get the development of a higher proportional degree of insanity. It may, perhaps, be thought illogical to predicate of the results of socialism and strikes that which we have found in observed cases of mental disease due to extravagant outbursts of excitement associated with Salvation revivalism, and it may be said that it is premature to found on limited

experience propositions which we perhaps wrongly assume to be universal or absolute. We have only endeavored to make such a provisional grouping of facts relating to the mental health of the community and the masses, that someone may be incited to bring them into such order as to be dealt with and laid before the masses themselves, in order that a public sentiment may be created among the working classes, which will serve in some measure to antagonize the spread of socialism and strikes, which we think inimical to the mental health of the people.

A JACKSTONE IN THE ESOPHAGUS, WHICH PRESSED UPON THE TRACHEA AND PRODUCED SUCH RESPIRATORY DISTRESS THAT TRACHEOTOMY WAS NECESSARY.

BY WILLIAM J. TAYLOR, M. D.,
PHILADELPHIA.

A little colored boy, aged 3 years, was admitted to St. Agnes' Hospital on April 3, 1894, with the following history. He was playing with some iron jackstones when he suddenly began to cough and to struggle for breath. He was seen by Dr. Theo. Sprissler a short time after the accident, who, although no one had seen the boy put the jackstone in his mouth, was convinced that one had been swallowed. He was unable by simple measures, such as the finger in the fauces and holding the child up by the heels, to give relief to the dyspnea, and the child was then sent to the hospital.

When I saw him first, about two hours after the accident, there was such extreme respiratory distress that prompt relief was necessary. A careful search was made of the mouth and fauces with the finger, but without revealing the presence of a foreign body, and as the dyspnea was too great to permit of a prolonged examination, I opened the trachea without giving an anesthetic. As soon as this was done, and it was accomplished without difficulty,

and with really very little pain to the patient, the relief was instantaneous. Nothing could be found in the trachea or bronchial tubes, and a silk catheter could be passed into the mouth from below.

I next passed a catheter down the esophagus nearly to, but I regret to say, not quite into the stomach, and also a pair of long-curved forceps, but without meeting with any obstruction or evidence of a foreign body.

A small silver tube was introduced into the wound in the trachea, and the child put to bed in a room specially prepared for him.

He was quite comfortable for two days, and, during this time Dr. D. Braden Kyle, laryngologist to the hospital, kindly examined the case with me to determine whether a foreign body was still in the throat. He had the greatest difficulty in making an examination, and all that could be determined was the fact that the larynx was much congested, as though it had been injured.

At first the child was able to swallow fluids in small quantities with comparative ease, but during the time the tube was in place the difficulty in swallowing increased rapidly. He would take a drink of milk eagerly, hold it for a moment, and then allow it to run out of his mouth. I thought that, as the child was very small and the tube somewhat large for him, this was the cause of the trouble, and that the tube was pressing upon the esophagus from in front. I therefore removed it and gave the resident surgeon strict orders to replace the tube upon the first signs of returning dyspnea. All went well for about eight hours, when the difficulty in breathing recurred, and the tube was replaced without difficulty. Still the boy did not swallow nourishment as he should and was losing strength rapidly in spite of rectal feeding.

I now determined to make another and even more careful search of the gullet, first with my finger, and then with instruments. Upon pushing my finger far down the throat I was just able to feel a smooth, hard body, which proved to

be the rounded point of an iron jackstone. By external palpation of the neck nothing could be felt that would lead to the supposition that a foreign body was present. After some little difficulty the jackstone was grasped in the jaws of a pair of curved forceps and removed. The care necessary to do this, on account of the large size and irregular shape of the jack, made it a tedious process. The utmost gentleness was exercised in these manipulations, but the mucous membrane was somewhat torn, for quite an amount of bloody mucus was brought up.

The child died on April 8, from exhaustion, and as no post-mortem examination was permitted, the extent of the injuries done to the esophagus and surrounding tissues can only be conjectured.

At the time of my first examination, just prior to the tracheotomy, I could not feel the jack with my finger passed well down the gullet, neither could I feel any obstruction to the passage of the forceps, nor to the catheter, which I thought had passed into the stomach. Both must have passed below the point at which the jack was subsequently found.

The interference to the respiration was due entirely to the jackstone within the esophagus, which pressed upon the trachea, and not, as I had supposed before operating, to the jackstone within the trachea itself.

This case has been a severe lesson to me, and has taught me that in all cases of dyspnea, supposed to be due to a foreign body within the trachea, a careful search of the gullet should first be made, and the probang should be passed into the stomach itself. Until this is done we must not open the trachea, provided this can be done without jeopardizing the life of the patient by too long and exhausting a search.

I can only explain the fact that I did not strike the jackstone with my forceps or with the catheter by the supposition that they passed between the prongs of the jack, and thus did not touch the substance of the iron, or else that it was so

far down the gullet that I did not reach it in my search. I report this as a warning to others that such an accident may happen, even when it was thought that all danger of such an oversight had been provided against.

One reason why more stress was not placed upon the fact that no foreign body was discovered at the time of operation was the knowledge that no one saw him swallow the jack, and it was thought possible that it might have been coughed up, and the dyspnea be due to the violence done to the larynx in its passage in and out.

In looking over the literature of this subject I have found the following case reported by Dr. T. M. Markoe (New York Med. Journ., May, 1886), which is very similar in many respects, and I quote it somewhat in detail:

A little girl, aged 3 years, put an iron jackstone into her mouth and swallowed it. Her mother could feel a hard body with her finger pushed well down the throat, but a physician, who saw her almost immediately, could feel nothing. He passed a probang into the stomach, as he thought, but met with no obstruction. The child was first seen by Dr. Markoe four days after the accident, and during this time there had been some little cough, but no dyspnea or evidence that the child felt local pain other than the fact that she would not swallow solid food, although fluids were taken without difficulty.

A careful examination while the child was under the influence of ether with a lead probe detected a foreign metallic substance after the probe had passed five inches down the esophagus, but there was no evidence of its presence on external palpation of the neck.

Very gentle efforts were made to extract the foreign body with forceps, but without success, and mucus tinged with blood showed the tissues were being torn by the manipulations.

The next day further attempts at extraction were made, and also to push the jackstone into the stom-

ach, but without success. Esophagotomy was performed on the left side by Dr. Markoe, who found the esophagus had been perforated, and the jackstone lying almost entirely without the tube, having perforated its wall from within outward.

Whether it had been pushed through the wall in the efforts to dislodge it with the probang or not, it was impossible to say, but it was due to some form of mechanical violence and not to ulceration. The child died of exhaustion twelve days afterward.

CAUSATIVE FACTORS IN THE PRODUCTION OF EAR DISEASES IN CHILDREN.

BY S. OPPENHEIMER, M. D., NEW YORK.

The occurrence of ear diseases in the large majority of cases during infancy can be ascribed to the frequency of disorders of the breathing apparatus, the acute infectious diseases and the central nervous system, during this period of life. Inasmuch as these affections of the hearing apparatus occur generally as sequelae, the attempt at prevention of such secondary aural complications plays a very important part in the treatment, it being necessary to protect the ear against the direct injuries which it is subject to.

In connection with these diseases in which ear illness occurs, nasal and pharyngeal affection will be first considered. The production can be brought about in various manners—either the disease is propagated through the Eustachian tube to the middle ear, or the closure of the pharyngeal opening of the tube leads to middle ear catarrh, or, again, the mucous membrane of the nasal and pharyngeal cavities is a good nidus for the reception and subsequent development of pathological micro-organisms.

In those cases of nasal or pharyngeal disturbance in which middle ear catarrh occurs, it begins generally without any subjective symptoms and is only first noticed after decided auditory trouble has manifested itself.

On the other hand, the symptoms of the primary trouble are rather striking—the child sleeps and breathes with open mouth, speaks with a “nasal twang,” and the face shows a characteristic stupid expression, by which appearance we can say without much hesitation that pathological changes are present in the naso-pharyngeal space.

In these cases the ear should be examined repeatedly, and the existing nasal or pharyngeal trouble should be treated without delay, as only can a safe issue be expected when no (secondary) pathological changes in the middle ear have taken place. In having saved the ear from severe disease, not only is our medical attention rewarded, but we have performed a moral obligation in preventing the suffering of the helpless infant.

Those children having ear trouble are not active-minded, learn poorly, and only with great difficulty comprehend the instruction received at school. Being unable to perform the tasks put upon them, they receive undeserved punishments. The consequence is that very often considerable disturbance of the mental faculties is caused thereby, and the tendency is for the aggravation of the diminution of the auditory perception.

It is to be urgently recommended that the hearing of all children who are inclined to be inattentive at school be examined.

Regarding the acute infectious diseases, such as scarlet fever, diphtheria, variola, etc., it is well known how often these occur in childhood, and that no organ of sense is so easily and so frequently affected during the course of these diseases as the auditory organ. This can be very readily understood when one considers that there occurs a deposit of a great number of micro-organisms upon the nasal and pharyngeal mucous membrane, which are very liable to produce a suppurative inflammation, which extends through the Eustachian tube to the middle ear.

The result is a perforation of the drum membrane, destruction of the relations of the auditory ossicles,

causing impaired hearing. Where the disease advances still further, it might invade the labyrinth and produce complete deafness. Proper prophylaxis can accomplish much in the prevention of these aural complications.

In antiseptic measures, we possess a means of destroying the micro-organisms and of limiting the extension of the inflammatory process, and thus innumerable children would be spared the affliction of ear trouble.

Deaf-mutism occurring as a sequelae of acute infectious diseases is generally due to the failure to early recognize the development of aural disease.

During the course of the aforementioned diseases it is essential, on prophylactic grounds, that the mouth and naso-pharyngeal space be washed out several times a day with weak antiseptic solutions. In those chronic diseases, such as scrofula, rachitis, congenital syphilis, etc., with accompanying aural trouble, proper prophylaxis can accomplish considerable.

By nutritious diet, healthy living, good ventilation and suitable medication we can not only mitigate the severity of the suffering, but limit the progression of the disease. In connection with external injuries, it is necessary to refer to the evil results following the entrance of cold water into the auditory canal.

True, in the majority of cases, nothing results after bathing and douching, inasmuch as the water, in following the curvature of the bony canal, does not often reach the drum membrane.

In other cases, particularly where the opening is straight, an inflammation of the drum membrane and its mucous covering occurs, and the fluid by its pressure and reduced temperature produced, acts both as a mechanical and thermic irritant.

A great many of these cases recover, but others remain with a perforation of the drum membrane, otorrhea and deafness.

In the bathing of the child the attendant should be cautioned to hold the head in the air, so that no water enters the nose, mouth or ear,

and it is to be insisted upon that the child be forbidden to jump into the tub. In the latter case, through the sudden compression of the air, a rupture of the drum membrane might ensue.

Cold currents of air, strong winds and damp weather tend to act injuriously upon the ear, producing acute inflammation of the drum membrane and of the middle ear.

In many children these factors do not exert much of an influence, whereas in others, in whom the sensibility is greater, severe pain is produced. This pain is the forerunner of the acute inflammation which follows. The sojourn for a lengthy time in localities where there are loud vibratory sounds affects the ear very injuriously.

Parents should endeavor to keep their children away from explosive sounds, machine houses, locomotives, etc., particularly the shrill whistle produced by the last-named. Children very often, while at play, blow a whistle of high pitch alongside the ear of a comrade. The use of this whistle should be positively forbidden.

In these injuries by the shaking of the labyrinthian fluid and the sudden disturbance of the position of the external expansion of the auditory nerve, it can be torn or even paralyzed.

Blows upon the ear, the clapping of the hands in its immediate vicinity or pulling of the auricle, can very readily cause a rupture of the drum membrane, followed by a hemorrhage into the middle ear or labyrinth.

The result of direct violence varies. Either, through the sudden compression of the air, a rupture of the drum membrane occurs, which generally heals very readily, or, in other cases, following the hearing, deafness and tinnitus remain.

Or, again, the force of the blow is transmitted direct from the drum membrane (without rupture of it) to the stapes, from here to the labyrinth, causing labyrinthian concussion, paralysis of the auditory nerve and complete deafness.

Accumulations of cerumen are a

very frequent cause of aural disturbance. The movement of the temporo-maxillary articulation tends to force out these half dried flakes in the majority of instances.

It is surprising to consider the persistency in the use of such inefficient instruments as the ear spoon, sponge, or the introduction of water from the hollow of the hand, for the removal of this cerumen by the child's parents.

The effect of such manipulation is to soften the wax somewhat and to shove it deeper into the auditory passage. As a matter of fact, accumulations of cerumen are more often noticed in those persons paying the strictest care to the cleanliness of the ear canal, the result of such over-attentiveness being its further introduction into the osseous portion of the auditory passage, at which point the effect of the movement of the maxillary articulation is not perceived.

These thorough methods of cleansing do not answer the purpose.

The simple washing of the auricle and external auditory entrance with a cloth dipped in lukewarm water accomplishes much more. Foreign bodies play a very important role in the injuries of the ear in children. Beans, buttons, pebbles; in fact, almost everything with which children are in the habit of playing, have been found in the ear.

A custom in vogue among the laity which acts particularly detrimental is the introduction of onion peel for the alleviation of pain. These foreign bodies are, as a rule, easy to remove, excepting where previous attempts have been made by an unskillful hand. Through this procedure the body is invariably shoved further inward, even as far as the drum membrane, sometimes causing rupture of it and the passage of the body into the cavity of the tympanum. I have met with several cases of facial paralysis directly dependent upon this mishap.

Ere concluding, I must not forget to mention the effect of the habit of introducing matches, hairpins, etc., into the ear or the closing (almost hermetically) of the canal with the

finger, and the violent shaking of the auricle. The result of the first is liable to be a painful suppurative inflammation, and of the second, the atmospheric vibration might cause labyrinthian hyperemia.

It is only to be hoped the prophylaxis of ear diseases in childhood will be looked up, not only as a duty by the physician, but by the general public, and that its hygiene will in the near future be enlarged upon and more universally practiced.

—The Palacio, 55 East 65th St.

Society Reports.

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The annual meeting of this national body was held May 7 to 10, in Baltimore, and proved to be an exceedingly brilliant and successful affair.

Physicians and surgeons, specialists and general practitioners, scientific explorers and workers in the ranks of the art of healing gathered at the Music Hall for the first session of the forty-sixth annual meeting.

Dr. Donald Maclean, of Detroit, Mich., president of the association, called the delegates to order. On the president's table stood a large basket of roses sent him by Parke, Davis and Co., of Detroit.

Bishop Paret made the opening prayer, in which he supplicated for the assembled physicians harmony in their deliberations and increased skill resulting from their conference.

Mayor Latrobe gave the physicians a hearty welcome to Baltimore.

Dr. Samuel C. Chew, chairman of the Reception Committee, said in part: "Eight and twenty years have passed since this city was last honored by your presence, and the changes which in that time have taken place in the association and in the world around us are a measure of the changes—happily advances in knowledge—which have occurred in medical science. Since then a whole generation of physicians has passed away. Another gen-

eration has come into existence, so that of those active and strenuous workers in the profession who are here to-day many had then not entered into it, and some, no doubt, were unborn.

"The old order has changed and yielded place to new. Peace is the atmosphere in which science flourishes and achieves her greatest triumphs, and in that long and blessed peace which our country has enjoyed how great are the advances which medical science has made? And, perhaps, the greatest of all these advances is the elevation of the standard of medical education and attainment which has been effected of late years, and which is continually being raised."

Dr. William Osler, vice chairman of the Committee on Arrangements, spoke in place of Dr. Julian J. Chisolm, who was unable to attend. He urged attendance upon the sessions and begged the delegates remember they were gathered not entirely for pleasure.

A NEW CABINET OFFICER.

"A Few Living Issues Affecting the Practice of Medicine and What Came of Them," was the subject of the annual address of President Maclean. He reviewed the history of the advance in medicine, with mention of the influence of anesthesia and vaccination. He also spoke of the necessity of systematic and higher medical education. With regard to a national bureau of health he said:

"A national bureau of health, superintended by a competent medical authority, who shall be a member of the Cabinet, could not fail to secure for the nation benefits beyond the language of dollars and cents to express. It is my deliberate opinion that the establishment of a bureau of health as an integral part of the nation's executive will prove an effective instrument in promoting the public welfare.

"The party, professional or political, which shall succeed in consummating this wise measure will assuredly earn for itself the gratitude and applause of an appreciative nation."

This part of the doctor's address

was, by vote of the association, referred to the national authorities.

PROPRIETARY REMEDIES.

A motion by Dr. Solis-Cohen, of Philadelphia, to appoint a committee to investigate certain charges of alleged quack medicine advertisements appearing in the official organ of the association created a momentary sensation, and gave rise to much discussion. The motion was lost.

Dr. E. Fletcher Ingalls, of Chicago, moved that a committee be appointed to confer with the Board of Trustees on the same matter. A vote was taken, and the motion was lost by 138 to 108.

Dr. Phineas J. Connor, of Chicago, said if the members of the association would refuse to prescribe proprietary medicines they could conscientiously oppose the publication of such advertisements. He moved that a committee of three be appointed to ascertain how many members of the association were accustomed to prescribe proprietary remedies. Dr. Ferguson opposed the motion, and said that the fact of a medicine or the rights of its manufacture being individually owned did not necessarily interfere with its remedial value. This motion was also lost.

NAVY SURGEONS.

The association passed a resolution similar to that adopted by the American Academy of Medicine, requesting Congress to place surgeons in the navy on an equal footing with those in the army, which is claimed to be now not the case.

RUSH MONUMENT.

The report of the Rush Monument Committee was read by the chairman, Dr. Albert L. Gihon, United States Navy. He stated that the sum contributed for the erection of a monument to the patriotic physician, Dr. Benjamin Rush, was \$309,439, invested in bonds and mortgages bearing 5 per cent. interest.

He lamented the fact, that, though the subscription had been started 11 years ago, with great enthusiasm and under conditions which seemed favorable to its success, this inadequate sum only had accrued.

In closing, he said a monument

could be erected if the association would contribute \$13,000. A site could be easily had and Congress could be readily prevailed upon to contribute a pedestal if the statue of Dr. Rush was furnished by the association.

Dr. Henry T. Holton, of Vermont, offered to make one of the 100 members to contribute \$100 each toward the fund, and was supplemented by Drs. William H. Daley, Pennsylvania; Henry O. Marcy, Boston; O. H. Wingate, Wisconsin; J. M. Keller, Arkansas; S. W. Free, Pennsylvania; J. N. Wyeth, New York; Jerome Cochran, Alabama; A. Garcelon, Maine; J. M. Ridge, New Jersey; B. D. Evans, Donald Maclean, of Detroit. Dr. J. M. Reeves, of New Jersey, and Dr. Patrick Espy promised the fund respectively \$50 and \$25. Dr. Wyeth, who was chairman of the New York committee which erected a monument to Dr. J. Marion Sims, afterward raised his subscription to \$500 provided five others give like amounts.

DECISIONS OF THE JUDICIAL COUNCIL.

The protest of members of the Allegheny County Medical Society, of Pennsylvania, against the registration of a former member of that society, and the appeal of this member against the decision of the Allegheny Medical Society, were referred to the Medical Society of the State of Pennsylvania for adjudication, with privilege of appeal to the Judicial Council of the American Medical Association after such adjudication.

The protest against the registration of members of the Cleveland Medical Society in the American Medical Association was referred to the Ohio State Medical Society for adjudication. The applications for registration, it was ordered, were to remain suspended until the case had been adjudicated by the Ohio State Medical Society, and if any member of the Cleveland Medical Society had already been allowed to register his money was to be refunded. This action was taken on account of the charge that physicians having dealings with so-called "quacks" had been elected to membership in the

Cleveland Medical Society, and that reporters from the daily papers were invited to attend the meetings, so that the members would be more or less advertised by the reports published the next day. Other charges were that the constitution and by-laws of this society were at variance with those of the American Medical Association; that its members consulted with irregular medical practitioners, and that one of its members had not been cleared of a charge of perjury against him.

Certain charges and protest against a physician of St. Louis, the council decided, had not been made in proper form to come before the association. The report was signed by Dr. John B. Roberts, secretary of the council. The report of the committee was accepted without a dissenting voice.

REPORT OF THE TRUSTEES.

The next business of importance transacted at the general meeting was the hearing of the Board of Trustees of the association. There had been considerable dissatisfaction expressed as to the advertisements of patent medicines allowed to be inserted in the official journal of the association by this board, and on this subject the report said:

"The trustees confidently assert that none of its contemporaries present advertising pages that are as free from objectionable material. During the year no advertisements of secret remedies have been accepted that were not accompanied by a formula, but, to still further comply with what appears to be a desire of a large number of those interested in the highest success of the journal, the editor, with the termination of the present contract, has been instructed to accept no advertisements of medicinal preparations the proprietors of which do not give a formula containing the official or chemic name and quantity of each composing ingredient to be inserted as a part of the advertisement."

The expenditures of the Board of Trustees during the fiscal year of 11 months amounted to \$30,884.82, and the receipts, \$36,245.90, leaving a balance of \$5361.08.

The report of the Board of Trustees evidently pleased the members of the association, for they received it enthusiastically with prolonged applause. President Maclean said that he feared the discussion on it would take very long, probably, and that it would perhaps be better to hear the annual address on surgery read before such discussion had wearied the members. But Dr. Solis-Cohen, of Pennsylvania, said there was no need for discussion, as the report was just what was desired. He moved that the report be accepted as read, and the motion was unanimously carried. A vote of confidence in the Board of Trustees was also passed. The question of patent-medicine advertisements in the official organ has long been a vexed question, and is now clearly and definitely settled.

A proposal was made that the dues of the members be raised \$1 a year, which dollar should be devoted to a building fund for the erection of a suitable central building of the association. After prolonged discussion, the resolution was ordered indefinitely postponed.

ADDRESS ON SURGERY.

The annual address on "General Surgery" was delivered by Dr. C. A. Wheaton, of Minnesota. In his address Dr. Wheaton gave a general survey of the present condition of surgical science, laying most emphasis upon recent advances made by the use of improved and more ingenious appliances to facilitate the exercise of the surgeon's knowledge and skill. He also gave some account of recent operations in surgery as illustrative of the real value to humanity of the recent advances in that science.

The final day of the session was, as is usually the case, given up largely to the transaction of routine business. The most important business done in the general assembly yesterday was the election of officers for the ensuing year and the reading of the annual paper on State medicine by Dr. H. D. Holton, of Vermont. Some of the sections met during the morning, but very few

papers were read, the sessions being short. A large percentage of the delegates went on an excursion to Gettysburg, leaving the city at 9 o'clock yesterday morning, arriving about noon, and returning in time to take the evening trains from the city.

Owing to the non-appearance of President Donald Maclean, the main assembly did not begin its work until 10.30 o'clock. Dr. N. S. Davis, the Nestor of the assembly, was called to the chair, and the reading of the minutes being dispensed with, the annual address on State medicine was delivered by Dr. Henry D. Holton, of Vermont. President Maclean took the chair just before the reading of this address.

The address dealt generally with some of the problems the State must deal with to protect its citizens from disease. Among the points emphasized by Dr. Holton was the importance of State Boards of Health. He insisted that they should be given ample power and latitude in carrying out what they considered for the best interests of the people. He indorsed heartily the action being taken by the association to secure a national department of public health, suggesting that an Advisory Board, consisting of one member from each State and one each from the army, navy and marine hospital, to be called together at special times by the secretary of the department as threatening dangers require. He also advised a uniform and national system of quarantine, and that the quarantine laws should be more stringently enforced and carried out. "Educate the press, and through them the people," said Dr. Holton, "to the necessity for the foregoing sanitary medical reforms. Great amounts of money are spent by the Government in armaments, ironclads and other military works, to keep out foreign invaders, but it would be a good thing if more were spent on keeping out invading diseases. Congress should be made to recognize the importance of sanitary legislation." Among other things touched upon in his address, Dr. Holton spoke of the great progress made

in the knowledge of how to prevent disease by the use of various drugs, beginning with the discovery of vaccination by Dr. Jenner, in 1796, up to the unfolding of vast possibilities through the use of antitoxine, in 1895. He said that there would doubtless be discovered within a short time, at the pace at which medical science is now advancing, many other disease-preventive and curative serums. In conclusion, he spoke of the great necessity of Government inspection and control with regard to cattle diseases, milk and other foods, and proper examination of patent medicines. A vote of thanks to Dr. Holton for his valuable paper was unanimously passed by the association.

Dr. E. H. Woolsey, of California, made a motion, which was carried, that as much disease was carried by paper money, the section on State medicine at the session next year should inquire fully into this important subject. It was also resolved that the *Index Medicus*, a medical paper, published in Detroit, should receive the support of the members of the association.

A committee report was submitted by Dr. Horner, that steps should be taken for the organization of a benevolent medical society.

COMMITTEE ON NOMINATIONS.

The report of the Committee on Nominations was called for, and this report caused more excitement and disorder than has taken place at any other time during the convention. The debates were very warm, and President Maclean had his hands full in trying to get clear of the parliamentary muddle in which the delegates attempted to lose themselves by amendments, substitutions, points of order and privilege, and speeches on and off the question at issue. On the question of the retention of Dr. W. B. Atkinson as secretary of the association, which the Nominating Committee had decided against, Dr. J. N. Quimby, of New Jersey, headed the movement in the former's favor by a speech, in which he referred to the 31 years of Dr. Atkinson's services as secretary without missing a single annual meeting.

Dr. William Osler, of Baltimore, created excitement by a very strong speech against Dr. Atkinson. He characterized him as a totally inefficient secretary, who was altogether unable to fill that office, and that he should be removed and a suitable person elected to fill his place. "I have said this behind his back," said Dr. Osler, "and I am not afraid to say it to his face. It is true, perhaps, that the faulty organization of the association may have in some measure been the cause of the present secretary's inefficiency."

Dr. Osler's speech was so evidently incited by some personal pique that he deserved the hisses he received from the audience. We have scarcely known such ungentlemanly conduct from a man pretending to be a professional gentleman to a visitor whom he should at least have shown courtesy in his own town. The speech won over to Dr. Atkinson many sympathizers, who were, perhaps, opposers to his re-election before. The vote was nearly unanimously in favor of sustaining the by-laws, which reads that the permanent secretary shall be retained in office until removed by death, resignation or a two-thirds vote of the society for cause. Dr. Atkinson was therefore retained as permanent secretary.

NEW OFFICERS ELECTED.

The full list of the new officers of the American Medical Association is as follows: President, Dr. R. Beverly Cole, of San Francisco, Cal.; first vice president, Dr. J. J. Chisolm, of Baltimore; second vice president, Dr. John C. Legrand, of Alabama; third vice president, Dr. Augustus B. Clark, of Massachusetts; fourth vice president, Dr. T. P. Sutterwhite, of Kentucky; treasurer, Dr. Henry P. Newman, of Illinois; secretary, Dr. Wm. B. Atkinson, of Pennsylvania; librarian, Dr. G. E. Wise, of Illinois. Members of the Board of Trustees, Alonzo Garcelon, of Maine; Dr. T. N. Love, of Missouri, and Dr. James E. Reeves, of Tennessee.

Members of the Judicial Council—Dr. N. S. Davis, of Illinois; Dr. H. O. Didama, of New York; Dr. John Mor-

ris, of Maryland; Dr. W. E. B. Davis, of Alabama; Dr. George W. Brower, of Chicago, Ill.; Dr. D. W. Smouse, of Iowa; Dr. M. B. Ward, of Kansas, for three years each, and Dr. William M. Welch, of Pennsylvania, for one year. Those selected to deliver the annual addresses at the next meeting are: Address on surgery, Dr. Nicholas Senn, of Illinois; address on general medicine, Dr. William Osler, of Baltimore; address on State medicine, Dr. George H. Rohe, of Catonsville, Md.

THE NEW MEETING PLACE.

The discussion of the question of the next place of meeting, while causing hot debate, was not so personal in character as that regarding the secretaryship. Dr. Albert L. Gihon, of Washington, was a strong advocate of that city for the meeting in 1896, when the one hundredth anniversary of the discovery of vaccination by Dr. Jenner is to be celebrated. He said that the association had decided on Washington for 1896 at its session three years ago. He headed the Washington faction, and Dr. J. McFadden Gaston and Dr. Cochran, of Alabama, headed the fight for Atlanta. The latter won after a long debate, and the forty-third annual session of the American Medical Association will be held at Atlanta, Ga. Dr. W. S. Westmoreland was appointed chairman of the Committee of Arrangements for the next meeting, and Dr. J. McFadden Gaston, Jr., as assistant secretary.

The new president, Dr. R. Beverly Cole, of San Francisco, was then conducted to the chair by Dr. A. L. Gihon, of Washington, and Dr. E. D. Ferguson. President Maclean made a speech of welcome to his successor, and the new president answered his welcome and thanked the association for the honor conferred upon him.

Delegates were then chosen to represent the American Medical Association at meetings of various medical associations abroad. Those chosen were Dr. W. N. Daly, of Pittsburgh; Dr. J. A. Ouchterlong, of Louisville; Dr. J. N. Love, of St. Louis; Dr. C. G. Chaddock, of St. Louis; Dr. L. H. Montgomery, of Chicago; Dr.

A. E. Rockey, of New York; Dr. I. N. Quimby, of New Jersey, and Dr. H. H. Beidler, of Baltimore.

This practically ended the session, a number of routine matters, unimportant resolutions and similar matters being rushed through during the last few minutes.

MEDICAL EDITORS ELECT OFFICERS.

The Association of American Medical Editors held its annual meeting at the Hotel Stafford yesterday afternoon. After the transaction of routine business, the election of officers for the ensuing year was held. Dr. George M. Gould, of Philadelphia, was elected president; Dr. Ohman Dumesnil, of St. Louis, treasurer, and Dr. H. B. Ellis, of Los Angeles, Cal., secretary.

BOOKS AND PAMPHLETS RECEIVED.

THE PREVENTION AND TREATMENT OF OPHTHALMIA NEONATORUM, AND THE NECESSITY FOR MORE EFFICIENT LEGISLATION TO PREVENT BLINDNESS FROM THIS CAUSE. By Charles H. May, M. D., New York. Reprinted from the Medical Record, February 16, 1895.

TYPHOID ULCER; PERFORATION (?); OPERATION; DEATH. CEREBRAL CYST; OPERATION; RECOVERY. By B. Merrill Ricketts, Ph. B., M. D., Cincinnati. Reprinted from the Medical Record, February 16, 1895.

A STUDY OF THIRTY-NINE CASES OF STRANGULATED HERNIA. By William Burton De Garmo, M. D., of New York, Professor of Special Surgery, New York Post-Graduate Medical School and Hospital. Reprinted from Annals of Surgery, April, 1895.

DISLOCATION AND DOUBLE FRACTURE OF THE UPPER THIRD OF THE HUMERUS. By B. Merrill Ricketts, M. D., Cincinnati, O. Reprinted from the Journal of the American Medical Association, September 8, 1894.

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INFLUENCE OF HEAT IN SUMMER DIARRHEA OF INFANTS.

As the warmer months approach we shall again be confronted by those factors which render the life of the young infant especially hazardous. Fermentation in food, while not confined to the summer season, is more apt to occur on account of the greater activity of those forces which control its accomplishment. Milk, one of the chief articles of diet in the young infant, is prone to undergo fermentative changes which render it unfit for food. Water, the essential dilutant of most food stuffs, takes up vegetable contamination with greater ease, and the alimentary canal is continually exposed to irritations from these sources.

But we often see children, who have been treated for a summer diarrhea and in whom the state of the passages have been rendered most natural by appropriate management, weaken and die from exhaustion

which is unaccountable for except as a result of the torrid condition of the atmosphere. In these cases it is well to recommend a change of air to a cool locality, no matter how low the infant may appear to be. Unless the fatality occurs before arrival at the destination there is almost sure to be improvement in the child's condition as soon as the cooler place is reached.

To govern our conditions of removal we have an admirable ally in the U. S. Weather Bureau. If a cool wave is approaching and will be due in a few hours it may not be necessary to remove the child at all. On the other hand if a hot wave is bulletined we should seek out its direction and probable course and hurry our patients out of its reach even though the journey take us many hundred miles.

The importance of heat and its influence on the summer diarrhea of infants cannot be over estimated, and we should deal with the subject scientifically. It would be interesting to observe the effect of a cold storage system on such infants whose parents cannot afford their removal to cooler climates. Well ventilated rooms so arranged after the manner of cold storage houses that the internal temperature would range between 60 and 70 degrees F. should, on theory, be efficient in the treatment of summer diarrhea of infancy.

OLIVER WENDELL HOLMES AS A PROFESSOR OF ANATOMY.

In a recent number of Scribner's Magazine Professor Thomas Dwight, successor of Oliver Wendell Holmes in the chair of Anatomy at Harvard, has some interesting reminiscences of the "Professor," not at the breakfast table, but in the lecture room. In his teaching Holmes always aimed at clothing the dry bones of anatomy with something of human interest; in the words of Professor Dwight, he "gave his imagination full play in comparisons often charming and always quaint." Thus he compared the coiled tube of a sweat

gland to a fairy's intestine, and he likened the mesentery to the shirt ruffles worn by our grandfathers, which from a short line of attachment expanded into yards of complicated folds. He compared the fibres connecting the two halves of the brain to the band uniting the Siamese twins. He was elaborate in his preparations for the anatomical lecture, taking great pains, not only with the dissections, but insisting on neatness in all the arrangements—clean sheets, careful draping, effective arrangement of specimens and pictures. Sometimes he would consult books on anatomy before the lecture, and would say jokingly to Dr. Dwight, "You must never tell that you saw me." Why should he not have looked at books? We have known anatomical teachers who had to "get up" the convolutions of the brain before each winter session, and demonstrators who would go to the dissecting rooms in the early morning to read up the "parts" before the students came. Even examiners have, unless tradition lies, been wont to refresh their memory beforehand so as to be able to torture their victims to their own satisfaction. According to Dr. Dwight, Holmes, in lecturing, addressed himself to the lower rather than the higher part of the class; "it was part of his humanity to do so." He even carried his humanity to the point of condescending to "tips;" even here, however, he was literary, and his "tips" were more classical than "Salasap," or the one anent a certain vexatious "Timothy." As might be supposed, Holmes as a teacher was very human and very lovable; his relations to his pupils were always most pleasant. In the words of Dr. Dwight, "His chief characteristic as Professor of Anatomy is expressed by calling him the student's friend." Summing up, Dr. Dwight says that Holmes' knowledge of anatomy was that of the scholar rather than the practitioner; he thinks that while Holmes would have been a great anatomist had he made that his life's work, he could never have been a great teacher of anatomy. After all teachers of anatomy are plentiful

enough, while good writers are scarce, and we may comfort ourselves with the thought that Holmes was better employed in stirring the hearts of thousands than in explaining the structure of the organ to a few.

ON CATCHING COLD.

Mark Twain once wrote a paper pointing out the appalling danger of going to bed as exemplified in bills of mortality. For one person who died out of his bed several hundreds succumbed in bed, and now we have Mr. Ashby-Sterry drawing attention to the same thing. Hitherto he has hymned in graceful verse pantalettes, frills and the tempestuous petticoat, and now, quantum mutatus ab illo Hectore, he lauds the pyjama. In a recent number of the Graphic he says:

"I have a theory that most people catch cold at night after they are in bed, and it is to this fact I attribute a great deal of the violent colds, the bronchial catarrhs and influenza which have recently been so prevalent. The temperature goes down suddenly in the night, and people catch cold when they are asleep without knowing it. This evil is to be counteracted, not by piling on a lot of heavy blankets, but by wearing thick, close-fitting garments of a pajama-like nature and warm socks on the feet. If this system were adopted I am quite certain that it would be found beneficial."

There is common sense in this. People unquestionably may catch cold in bed, especially if they are at all restless and so kick the bed-clothes off. In that event, if only clad in a thin cotton nightshirt, they are sure to catch cold, whereas if clad in pyjamas, not necessarily thick, but made of some woollen material, the chance of a chill is much lessened. Our ancestors, even as late as the eighteenth century, went to bed, as Malory centuries earlier phrased it, "as naked as a needil;" but only the hardiest of them survived. We, however, are cast in more tender moulds, and require protection by night as well as day. The

feminine portion of the community will, we fear, not adopt Mr. Ashby-Sterry's suggestion, for though, as an eminent authoress once remarked, "a woman looks so down-trodden in her nightdress," still that vesture offers opportunities for ornament which pyjamas, at best unlovely garments, never do. Perhaps the Rational Dress Society may take the matter up, and Mr. Henry Holiday might turn his attention to devising a really artistic as well as hygienic night-gear.—Lancet.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

THE GOUTY HEART.

M. Mitchell Bengé has published a clinical paper on the cardiac manifestations of commencing gout. He starts with the idea that the gouty process acts on the coronary arteries and nervo-muscular elements of the organ, and, thus being impeded in action, either temporarily or permanently, undergo hypertrophy. The clinical signs are as follows: The disease is ordinarily seen in persons about middle age, of sedentary habits and easy life. In most cases they have been subject to articular pains, sciatica or lumbago, skin disease, nervous disorders, or disorder of the alimentary canal, especially diarrhea. Insomnia is not infrequent; also some catarrh of the urinary organs. It is then that the heart commences to take part in the symptoms. After some excess the patient is seized with precordial pain, frequently of anginal character. This state may exist for some time and the heart may be irregular in its action. The patient is generally much taken up with his condition. The pain may be essentially cardiac, and may vary in its character. Palpitations are frequent, and syncope sometimes is seen.

Physical examination is often negative; the impulse is weak; the heart is hypertrophied. Valvular disease is absent. The first sound is weak at

the base and doubled at the apex. The second sound is less clear than the exaggerated arterial pressure would indicate. Physical signs vary with each case. In some cases there is no hypertrophy, while in others valvular lesions are present. The pulse is generally frequent; sometimes irregular or intermittent. Arterial tension is sometimes strong; sometimes weak. The diagnosis is difficult if the cardiac signs are the first symptoms of gout, but the mistake must not be made of considering every case of non-valvular disease of the heart as being due to gout. It must be distinguished from:

1. Schiuses, with hypertrophy.
2. Bright's disease (vascular lesions.)
3. Senile degeneration (convincing.)
4. Tobacco heart.
5. Old valvular lesions, without murmur.

The prognosis so far as life is concerned is good. The disease is of long duration, and may be alleviated greatly. Treatment includes exercise in open air, nourishment, alkaline waters, no malt or vinous liquors, or tobacco. For drugs, mercurial purgatives, iodide potassium, arsenic, strychnine, digitalis and strophanthus must be used cautiously. For the anginal symptoms the usual remedies are employed.—La Courrier Med.

HYPERTROPHY OF THE INFERIOR TURBINATED BONES.

This is quite common and occurs at all ages, with clear and characteristic symptoms. Its situation makes it the most important organ in the nasal respiratory function. Hypertrophy not only produces difficulty of breathing, but also excessive secretion. The mucous membrane covering it is normally rich in glands, and when hypertrophied the glands are increased in size and number. It may be congenital or acquired. It is congenital in scrofulous children, whose lymphatic tissues are enlarged. In adults the affection is usually acquired, generally from coryza, which has become chronic, or

from breathing irritating dust or vapors. The nasal obstruction, causing mouth breathing, brings on dryness and irritation of the throat, and the mucus flowing, both anteriorly and posteriorly, may set up dermatitis or otitis. Hypertrophy of the turbinated bone has been confounded with nasal polypus. It may be distinguished by the fact that the latter is gray in color, whilst the former is reddish. The treatment consists in diminishing the volume of the bone by exercising the thickest part of it, or cauterizing with the galvanic cautery, to be followed with antiseptic washes. The naso-pharynx and pharynx must also be looked after and treated, if required.

SALIPYRINE AS A HEMOSTATIC IN UTERINE HEMORRHAGE.

Zurhelle recommended it for this purpose, and others have used it with good effect in menorrhagia. In the dose of 1 gramme three times a day, given before and during the period at alternate months, it exercised a marked restraining influence on the amount of discharge, and it is considered to be worthy of extended trial.—*La Courrier Med.*

A CASE OF POISONING BY THE SIMULTANEOUS EXTERNAL APPLICATION OF TANNIC ACID AND PERMANGANATE OF POTASSA.

A young girl subject to eczema, which had recurred for several years, was treated by concentrated solutions of tannin, or by baths of permanganate of potassa of one-half to one per cent. On the occasion of a very severe attack the upper limbs were treated by tannin and the permanganate baths were used at the same time.

An intense fever, accompanied with profuse diarrhea. After the tannin was discontinued, the symptoms lasted a week. The tannin no doubt was oxidized by the permanganate, and pyrogallic acid formed, and it is, therefore, contra-indicated to use the substances in conjunction.—*Rev. de Therapeut.*

GUAIACOL GLYCERINE.

Darbovet advises the application of guaiacol glycerine (a mixture in proportion of 1 of guaiacol to 1.224 of glycerine) for applications in phlegmous and membranous (non-fibrous) sore throat. The mixture requires shaking. It produces considerable pain, which, however, does not last long, and is replaced by a feeling of ease and comfort. It reduces the inflammation quickly. It is repeated four times in the day (24 hours).—*Rev. de Therapeut.*

Labadie Lagrere uses in certain cases of uterine hemorrhage a mixture of salol and antipyrine, which combine to form a liquid. The process is taking equal parts of drugs and heating them in a large test tube. A clear liquid of a light bluish tint is soon found, but as this solidifies rapidly, it requires further heating until it becomes nearly brown in color. It is applied on a willow cotton carrier once or twice, and then a tampon soaked in creosoted glycerine is placed in the vagina, and the patient remains in bed. The applications give rise to no pain or danger, the hemostatic action is rapid and complete. It has been used successfully in hemorrhage due to fungous urethritis, uterine displacements, fibro-myomas, malignant tumors at their commencement, when the hemorrhage is due rather to congestion than to ulceration of the womb.

ALCOHOLIC PARALYSIS SUPERADDED TO INFANTILE PARALYSIS.

A young soldier, when about 2 years of age had infantile paralysis, which left him with a slight atrophy of the left leg. During his term of service he became deeply intoxicated, one very cold night, and was found unconscious. The alcoholic odor left no doubt as to the cause. After regaining consciousness the left leg was found to be partly paralyzed. This would seem to show that the lesions of alcoholic paralysis may be situated in the large cells of the anterior horns of the cord.—*France Med.*

INCUBATION OF ERYSIPELAS.

Varies between 2 and 10 days and oscillates generally between 4 and 6. In traumatic cases the interval between the wound and the occurrence of the erysipelas varies greatly. In 5 cases out of 41 the incubation varied between 7 and 18 hours; in 3 cases, from 10 to 14 days; in 1 case, 22 days.—Roger.

THE TREATMENT OF TYPHOID.

At a recent meeting of the Victorian branch of the British Medical Association a paper on the treatment of typhoid fever was read by Dr. L. Henry, which strikes us as remarkable for its sound common-sense reasoning. Speaking of the marked changes which the treatment of this disease has undergone of late years he remarked upon the influence thereon of bacteriology, and its result in emphasizing the greater observance of attempting intestinal antiseptics, an idea too frequently misunderstood, leading to the mischievous dosing of patients with chemical antiseptics. Dr. Henry suggests that the usual method of feeding by broths and milk is to be condemned as furnishing the typhoid bacillus with the best media for cultivation, and he recommends the administration of fruit acids, fruit pulps and vegetable effusions; these contain sufficient nourishment for the patient, while the fruit acids are antagonistic and destructive to the phenomena induced by toxins. He further points out that, as in typhoid, the digestive functions are in abeyance, the liver is inactive, and the bile loses its antiseptic activity, the withdrawal of non-animal food relieves the liver of heavy work. With this dietary Dr. Henry states that there is no looseness of the bowels, no meteorism, the temperature at night rarely rises above 103 degrees, the tongue is moist, and convalescence is hastened. Besides barley, rice and oatmeal infusions, he also gives extract of malt. Where drug treatment is required he suggests the decoction of red cinchona bark, as containing a strong percentage of tannic acid, and as a vaso-

motor stimulant he prefers atropine and strychnine hypodermically.—Med. Times and H. G.

A CONSTANT SIGN OF COM-MENCING MENINGITIS.

This consists in the inharmonious movements of the chest and diaphragm. It exists from the beginning, and may serve to reveal it even in insidious cases. It requires careful searching. The chest and abdomen must be bared, but not suddenly, or the hyperesthetic skin will take on accidental movements from the action of the air.

In the first period of meningitis we see irregularity of rhythm and then remark the inequality of the amplitude or development of the chest. Another sign is the irregular type of respiration and dissonation of the movements of chest and diaphragm. The respiration is effected by the lower respiratory muscles of the chest. Looking at the umbilical region, instead of the normal elevation with each inspiration, there is either immobility or depression. These movements are not connected with the Cheyne-Stokes type of respiration.

DISEASES WHICH MAY STIMULATE PLEURISY.

An American contemporary recently delivered an excellent sermon on the diagnosis of pleurisy, the text being the following quotation from a lecture of Trousseau: "I admit that in the great majority of cases pleurisy is a very easy disease to diagnose; however, there occur cases in which, while all signs of pleurisy are present, yet the autopsy shows some other affection to be the cause of death." The writer groups the diseases which may simulate pleurisy with effusion thus: 1. Diseases of the pleura. Excepting hydatid cysts, these are rare, the only one mentioned being a case published by Ouliment, in which cartilaginous degeneration of the pleura gave rise to dulness, bronchophony and absence of vibrations in such a way as to make the diagnosis of pleurisy clear, and it was only at the autopsy that the true condition was discovered. 2. Diseases

of the lungs. Under this group are included pneumonia with bronchial obstruction (in which the temperature often forms the only guide), "spleno-pneumonia" (a disease which we hear of for the first time, and which is, according to Graucher, a pulmonary congestion whose symptoms resemble those of pleurisy), hydatids of the lung and pulmonary carcinoma. 3. Diseases of the mediastinum, among which it is stated that both cysts and aortic aneurism have been mistaken for pleurisy. 4. Diseases of the liver, especially hydatid cysts when they encroach on the thoracic cavity. Error of diagnosis here can only be avoided by carefully tracing the limits of dulness. Hepatic carcinoma has also given rise to a false diagnosis. 5. Diseases of the kidney, mention being made of one case of perinephritic abscess which closely simulated pleurisy.—*Med. Times.*

Gynecology and Obstetrics.

FLEXIONS AND DISPLACEMENTS OF THE UTERUS.

Mackenrodt (*Archiv f. Gynak.*, vol. xlviii, part 3, 1895) has carefully studied the anatomy of the structures supporting the uterus, and illustrates his dissections by a series of instructive diagrams. The pelvic fascia forms the pelvic floor. It is the supporting agency which prevents displacement of the viscera. The genitals do not simply pass through a foramen in the fascia, the edges of which hold on to the uterus and vagina by a few stout fibres. The fascia sends dense ligamentous bands into the supravaginal part of the cervix and the vaginal wall, and these bands support the uterus and vagina. As the upper part of the cervix is normally concave forwards, the body of the uterus necessarily hangs forward over the cervix. In other words, the natural anteversion and anteflexion of the uterus are due to the shape of the cervix, and dissection further shows that there are no processes from the pelvic fascia

to hold the body of the uterus in the well-known position, nor is it so held by the peritoneal folds. The uterus is retained in its anteflexion by gravitation and abdominal pressure from above. The perineum, Mackenrodt insists, has only an indirect share in resisting intra-abdominal pressure. Flexions and displacements may be due to pathological changes in the ligamentous bands distributed to the cervix or to morbid changes in the essential uterine tissue itself. Thus, a bulky uterus with weak muscular walls in a roomy pelvis may become abnormally anteflexed. The special primary condition in retroflexion is relaxation of the uterus and of the ligaments of the cervix. In prolapse there is tension and atrophy of the ligaments of the cervix and vagina, always accompanied by atrophy of the muscular structures in the pelvis.

PREGNANCY WITH UNRUPTURED HYMEN.

Guerard (*Centralbl. f. Gynak.*, No. 15, 1895) relates three new cases of pregnancy in which the hymen was persistent. In the first and second there was a protracted second stage due to the resistance of the hymen, which was perfect and very elastic. After a crucial incision the fetus was at once delivered, but in one case the child was lost. In the third case the patient appeared to be in the seventh month of her first pregnancy and suffered from severe pain in the genital tract. Although she had twice been operated on for atresia of the hymen, the vagina was still closed by a firm, impermeable and tender membrane. This was excised, the pains disappeared and the pregnancy continued and ended naturally. Guerard notes a case of bifenestrated hymen where the openings barely admitted a hair; yet the patient reached the third month of pregnancy, and abortion was induced in a manner which could not be ascertained. In considering these cases, he notes how the alkaline uterine mucus, poured out during orgasm, protects the spermatozoa from destruction by vaginal mucus.

TWO CASES OF SPONTANEOUS RUPTURE OF THE UTERUS IN LABOR; RECOVERY.

Gessner (Zeit. f. Geb. u. Gynak, vol. xxxi, part 2, 1895) recently exhibited at a German Medical Society a woman who suffered rupture of the uterus whilst she was being rendered antiseptic before turning was undertaken. An asphyxiated child was extracted. The tampon was applied and the abdomen firmly bandaged. Two hours and a half later, as the pulse was bad, the abdomen was opened; but, contrary to diagnosis, the rupture was found not to be complete. There was an extensive hematoma in the left broad ligament. The parietal wound was closed; the patient recovered. In another patient rupture of the uterus was caused by hydrocephalus in the fetus. Craniotomy and extraction being done, the incomplete rupture was plugged and drained with sterilized gauze. During the puerperium a vesico-vaginal fistula developed.

VAGINAL RESECTION OF THE RECTUM.

Rehn (Centralbl. fur Chir., No. 10, 1895) states that in cancer of the rectum in females the affected gut can be readily removed through a vertical incision made in the middle line of the posterior wall of the vagina and carried backwards in the perineum as far as the external sphincter ani. By such an incision he was able with very little difficulty and without much hemorrhage to remove an extensive cancer from the rectum of an aged woman. The incision of the posterior wall of the vagina, he states, permits of free removal of a large malignant growth and facilitates the separation of the diseased mass from the surrounding soft parts. The rectum having been plugged with antiseptic gauze and the vagina thoroughly disinfected, the posterior vaginal wall is carefully incised and separated from the diseased gut. The perineum is next incised in the middle line and the rectum below the seat of disease, isolated, ligatured and divided. The upper and cancerous portion of the gut

is now drawn through the vaginal wound and excised. This stage of the operation, it is asserted, can be effected with but little hemorrhage and with free exposure of the diseased structures. An opening in the peritoneum can be readily dealt with in this operation, and any enlarged glands in the meso-rectum can be removed without difficulty.

Therapeutics.

IN CHARGE OF

DR. LOUIS LEWIS, Philadelphia.

ENEMATA IN THE TREATMENT OF DIARRHEA.

In an editorial article the Therapeutic Gazette says: "We believe that large rectal injections, or injections of sufficient size to wash out the sigmoid flexure and colon, are not sufficiently resorted to, particularly in those cases of diarrhea in which a catarrhal element is well marked. In these catarrhal cases it will generally be found that mixed with the watery portion of the discharge there is more or less mucus in strings or flakes, which indicates, as a rule, that a certain amount of the trouble, at least, is situated in the colon. While the rule is by no means an absolute one, the presence of large quantities of mucus indicates very strongly that the whole trouble is in the larger bowel. It is evident, therefore, that the use of drugs by the mouth is a very indirect way of influencing the diseased area, since the medicament must pass through the esophagus, the stomach, the duodenum and the small intestine before it arrives at the point where its therapeutic efficacy is to be developed. On the other hand good results are attained if large clysters are given by means of a hydrostatic syringe elevated not more than 18 inches or two feet above the rectum. Such treatment will frequently control the movements, limiting them to one or two in 24 hours, even if the fluid character of the stool remains unchanged. Various substances have been employed dissolved in the water to

be injected. Some of them have not only a powerful local action, but, in addition, are capable on absorption of producing widespread influences throughout the body. Among these may be mentioned salicylic acid and its relatives, nitrate of silver, iodoform when given in oil emulsion, and some of the vegetable astringents. The substance which has always given us the best results under these circumstances is the sulphocarbolate of zinc in the proportion of 10 to 30 grains to an injection amounting to from two to three quarts. In some instances the water should be tepid, in others it should be as hot as the bowel can stand, and in still others it should be quite cold, the temperature of the injection depending largely upon the acuteness of the inflammatory process and the sensations of the patient, for in the same way that an application of cold water is grateful to a sprained ankle of one individual, while another prefers hot water, so does one patient get comfort from cold injections and another from heated ones. If the water be cold, care should be taken that undue chilling of the body does not result in feeble persons, or if hot, on the other hand, that a mild degree of heat fever is not produced. The success of this treatment depends absolutely, in many instances, upon the gentleness and care with which the injection is given, and the water must be allowed to trickle into the bowel rather than to enter it with any force, for the three reasons, that (1) if force is used, the bowel immediately resists the injection and perhaps forces it out. (2) It becomes so irritable that further injections are impossible. (3) This condition of rectal irritability reflexly causes irritability of the entire intestinal tract in much the same way that rectal ulcer may cause diarrhea, and as a consequence, the patient is worse than before the method was attempted. In those cases of chronic diarrhea in which the patient is markedly emaciated and unable to digest much food, so that the condition of impaired nutrition is an important factor in preventing recovery, this method of treatment is to

be highly recommended, and it is worthy of note that a small rectal injection, amounting to an ounce or two of iodoform and sweet-oil emulsion, in the proportion of five grains to the ounce, injected into the bowel after a large watery movement has passed away, will relieve any tendency to tenesmus and, by the absorption of a small amount of iodine, exercise a useful influence over the catarrhal process which underlies the symptom which we are treating."

PERMANENT CURE OF RHEUMATISM THROUGH MISADVENTURE.

Dr. Alan T. Sloan reported in the Edinburgh Medical Journal for February a very interesting case of successful cardiocentesis. In a hurried attempt to tap the pericardial sac, the right ventricle was entered. The patient, a young woman of 19, was at the time in a very low condition—"practically moribund," as some one has expressed it. The attack was one of acute rheumatism, subsequent to a sharp attack of facial erysipelas; there was the complication, well-nigh fatal, of pericarditis with effusion. In fact, the announcement had been borne to him that the woman had died. Dr. Sloan found her with a pulse too feeble to be counted and with the facial pallor of death. He gave her two subcutaneous injections of ether, whereupon pulse and respiration ceased. In the excitement of the moment the physician took up his aspirator and plunged the needle in the fourth interspace about half an inch to the left of the sternum. Much to his surprise there flowed rapidly into the bottle of the aspirator eight or more ounces of pure blood, showing that the right ventricle of the heart itself had been entered by the needle. The physician felt that all chance for recovery was gone forever. He adds:

"As I was slowly withdrawing the canula, regretfully telling the nurse that it was all over, and to close the patient's eyes, to my surprise the heart made first a feeble irregular movement, then gave a sudden

strenuous jump, and finally, like a pendulum regaining its swing or a runner his stride, it started to beat again in the race for life. In moments of intensity it is difficult to estimate time, but I should say fully half a minute had elapsed between the introduction of the needle and the re-starting of the heart-beats. It was an extraordinary sensation to feel the heart beating more and more forcibly against the point of the canula, which was gradually withdrawn so as not to further injure the heart wall. I was standing thus, with my thumb on the puncture made by the needle, when Drs. Bramwell and Smith made their welcome appearance. My uppermost feeling at first was one of regret that I had converted a patient practically dead into one apparently dying, and sincerely did I lament that she had not been left to pass away in peace, for a most pitiful scene was now enacted for an hour. Occasionally there was given a heartrending shriek; quantities of frothy mucus were half-coughed, half-vomited, and had to be swept out of the mouth with a towel; the blood went ebbing and flowing from the cheeks, which were first ashy gray then purplish in hue; the pupils were dilated to their fullest extent; the running following pulse was quite unaccountable; and the patient had every appearance of one dying asphyxiated."

The cardiocentesis was supplemented by ether subcutaneously injected, the result of which was a maniacal excitement that required opiate treatment. Dr. Sloan continued free stimulation by the mouth with brandy and champagne. The patient's condition improved, so that 48 hours after the puncture there was a return to normal temperature and to a pulse of 40. Two months later she was sent away into the country, and four months still later she reported as being restored to perfect health.

There have been other cases of accidental puncture of the heart, when the intended operation was only a paracentesis of the pericardium. One by Roger, in 1872, the

right ventricle of a child was entered, drawing off six ounces of blood; the child was suffering from pericardial effusion. The patient recovered from the effects of the operation, but died five months later from failure of compensation.

Dr. Sloan, in looking up the literature of the subject, found other cases where relief was obtained by cardiocentesis, but his own is the first he was able to refer to as a "permanent cure." He opines that, among other conditions, narcosis from chloroform will be found to be one that will sometimes respond to the aspiration of the heart.—*Am. Med. Jour.*

ENLARGED FACULTY OF THE SCHOOL OF PHARMACY OF NORTHWESTERN UNIVERSITY, CHICAGO.

Illinois College of Pharmacy, Chicago, has added to its faculty two strong men of national reputation, Mr. Henry Kraemer, well known to the pharmacists of this country as the reporter on Progress of Pharmacy of the American Pharmaceutical Association, and Mr. Jan B. Nagelvoort, whose name is familiar to the readers of current pharmaceutical and chemical literature. These gentlemen are both apothecaries, and distinguished for their ability and their active participation in the scientific work of their profession.

TRAUMATIC PROLAPSE OF THE LACHRYMAL GLAND.

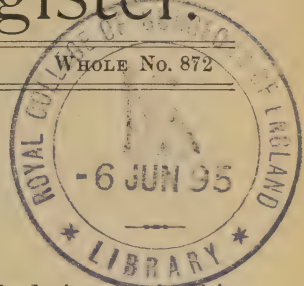
G. Haltenhoff (*Revue med. de la Suisse Romande*, March 20, 1895) reports a case in which prolapse of the lachrymal gland was caused by a fall on the face in a boy aged 2 1-2 years. Three days after the accident the gland was excised, and some months afterwards no difference in the two eyes could be seen. The gland does not seem to be necessary to the eye. The secretion of the conjunctival glands and conjunctiva, and possibly of the subconjunctival glands of Krause, keep the eye sufficiently lubricated. In this case, when the child cried, both eyes wept equally.

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FAT IN PULMONARY CONSUMPTION.

BY THOMAS J. MAYS, A. M., M. D.

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Fat is one of the most important, though one of the most unstable constituents of the human body. It gives weight, rounds off the angular outlines, and protects against cold and injuries. Normally it fluctuates with the cycle of the seasons, diminishes rapidly in disease, and speedily returns during convalescence. Its diminution marks one of the earliest symptoms of pulmonary consumption; hence, the index which is afforded by the weighing scale forms an element of precision in the diagnosis and prognosis of this disease.

What is the source of fat in the animal economy? Is it derived from the outside as fat, or is it manufactured by the body from other food? These are questions of great physiological and clinical significance in relation to the disease under consideration. There are two great classes of foods; the proteids, or albuminoids; and the fatty and starchy foods, and there was a time when the animal body was likened to a steam engine, inasmuch as it was believed that the proteids furnished the material for the structure of the machine, while the fats and starches were oxidized and gave the necessary force to keep the machine in motion. According to this view the fat of the body is derived from the fatty and starchy foods, and is used at once, or stored up for future purposes. This view is not strictly true, as will appear further on.

The fat of the body is contained in cells which are composed of protoplasm and possess nuclei. The cells abound in the interstices of loose connective tissue, and are found under the skin, especially in the soles of the feet, the palms of the hands, buttocks, female mammary gland, around the synovial capsules of the joints, in the orbits, in the medullary canals of bones, in the surroundings of the kidneys and the omentum, and on the surface of the heart.

When an animal fattens it appears that oil globules are formed within the fat-cells. These globules increase in number, while the protoplasm of the cell diminishes. These globules are not deposited in the cells in a mere mechanical manner, but they are formed by the cell itself and at the expense of its own protoplasm, which becomes very much attenuated. It seems, therefore, that the fat of the body is as much a secretion of the fat-cells as pepsin is a secretion of the peptic glands, or as the oily matter of the skin is the secretion of the sebaceous glands, or as the fat of milk is the product of the cells of the mammary gland.

From the fact that the protoplasm of the fat-cells undergoes metamorphosis when the oil globules form, it seems quite obvious that other than fatty food is used by the body in the manufacture of fat, and that in all probability proteid or albuminous food is used for this purpose. It was shown by Liebig long ago that fatty, starchy, and saccharine foods do not form the exclusive supply of fat in the body; for the butter in the milk of a cow far exceeds the scanty supply of fat in her food, and the wax which is produced by bees is out of

all proportion to the amount of sugar which they consume in their food. The feeding experiments of Lawes and Gilbert also demonstrate "that for every 100 parts of fat in the food of fattened pigs, 472 parts were stored up as fat," showing, therefore, that fatty foods only supply about one-fourth of the fat which is contained in the body.

That proteids form an important source of fat in the body is evidenced by the following facts: Microscopic observation shows that the fat of milk is formed by the epithelial cells of the mammary gland through the probable metabolism of protoplasm. Fat in milk is largely increased by albuminous, and diminished by fatty, foods. When cheese "ripens" its proteids are converted into fat. Milk-sugar is maintained in abundance in the milk of carnivora even when fed on an exclusive meat diet (Foster). Fatty degeneration, as is often witnessed in the heart and in other important organs, is further evidence that proteid substances are converted into fat.

By this I do not wish to convey the idea that albuminous foods supply the greatest part of the fat to the body; nay, we know that this is done by the carbo-hydrates; but I desire to lay special emphasis on the fact that fats and oils do not play the important part which they are popularly supposed to do in the nutrition of the animal body, and on the further fact that proteids are of greater value as fat producers in pulmonary consumption than they are generally believed to be. In fact, evidence is not wanting to show, as has already been hinted at, that both fats and carbo-hydrates diminish the metabolism of the body, while a meat diet enhances the same, increases the oxidizing activity of the body, multiplies the number of red blood-corpuscles, and leads to a rapid consumption of fatty and carbo-hydrate food. A great deal of harm has followed the doctrine that the fat of the body only comes from the fat of the food, and that therefore the only way to fatten a consumptive is to ply him with fats and oils of various description. Every

experienced physician knows that oil and fats produce dyspepsia in many such patients, and do no good in some with whose digestion they seem to agree, while there are a few who thrive under their use, but whose fat does not seem to have any staying qualities. It seems to me that oily and fatty foods only confer a real benefit on a minority of consumptive sufferers, and that much greater service is rendered to the nutrition of such patients by the administration of albuminous foods, the important ones among which are freshly expressed beef juice, beef, mutton, lamb, milk, eggs, oysters, clams, proteinol, liquid peptonoids, beef powder, meat juice, beef peptones, etc.

An important question comes up here in regard to the influence which rest and exercise have on the fattening process of the human body. Is physical activity more conducive to fat-building than rest, or is it not? This may be said to depend altogether on circumstances. There is no doubt that in health exercise gives both fat and strength, but it is quite different with the invalid. The fat which is stored up in health represents so much surplus capital which is laid up for a rainy day; but the consumptive has no surplus capital and lives, as it were, from hand to mouth. All his energies are devoted to the maintenance of those bodily functions which are immediately necessary to life, such as circulation, respiration, digestion, innervation, etc., and very frequently these are carried on imperfectly. To him, therefore, exercise is meaningless, for he has no capital to exercise until he gets stronger and lays up some. Hence he must practice economy. He must restrict his outgo and increase his income. This he can only do by resting.

That rest promotes the collection of fat is shown in the fattening of animals. Swine and cattle, which are prepared for the butcher's knife, are not allowed to run loose, but are closely confined; and the geese of Strasburg, which fatten to enormous proportions in a few weeks, are shut up in tight boxes with just suf-

ficient room to project their necks. I have, again and again, observed that with no other change in the treatment except the substitution of rest for exercise, consumptives show a marked and distinctive improvement and gain in flesh.

It is also of great interest in this connection to consider the influence of the nervous system on nutrition; although, owing to the limited time at my disposal, I can only briefly refer to this subject. Whether there are special trophic nerve fibres or not, it is quite clear from the large number of experiments which have been performed, that the nutrition of that part of the body suffers if its supplying nerve is divided or injured. Clinical evidence points out the same. It is well known that in neuralgia, the limb, or area of tissue to which the affected nerve is distributed, emaciates and loses its fat. Clouston states (*Mental Diseases*, p. 469) that thinness is the almost constant accompaniment of melancholia, and that fattening of the patient is its natural cure; and he furthermore says that this depraved or weakened trophic energy speedily tends to end in phthisis pulmonalis. In fact, he believes that melancholia has a special proneness to terminate in pulmonary consumption. Phthisis and melancholia run a parallel course in this respect. Emaciation is their common enemy, while fat redeems both, and, according to Clouston, the latter is convertible into the former disease. Are we not able to discern in this a confirmation of the view that a causative relation exists between disease of the nervous system and disorder of nutrition? Is it not probable from this that the building of fat is intimately dependent on the integrity of the nervous system? This probability is strongly confirmed by the therapeutic action of strychnine. It is well known that this agent has no other influence except that which it exerts on the nervous system, and yet I know of no other single drug under the administration of which consumptives fatten more promptly than under strychnine when it is given in gradually increased doses, and combined

with suitable rest and nutritious food, as is attested by the following list of cases abstracted from my notebooks, which includes those adult patients who have shown the greatest disposition to gain in flesh during the last three years.

- (1) N. Second stage; gained ten pounds. Still under treatment.
- (2) P. First stage; gained fifteen pounds. Recovered.
- (3) W. Third stage; gained twelve pounds. Disease arrested. Is at work.
- (4) R. First stage; gained ten pounds. Disease arrested.
- (5) O. Second stage; gained sixteen pounds. Disease arrested.
- (6) K. First stage; gained twenty-two pounds. Recovered.
- (7) S. Second stage; gained twenty-eight pounds. Disease arrested. Is at work.
- (8) S. First stage; gained eighteen pounds. Recovered.
- (9) E. Female Third stage; gained twenty-seven pounds. Recovered. Gave birth to a baby one year ago. Remains well.
- (10) N. Female. Third stage; gained thirteen pounds. Recovered. Gave birth to a baby a year ago, and expects another in four months. Is doing very well.
- (11) J. Disease complicated with empyema. Drainage. Recovered. Gained seventy-three pounds. Is at work.
- (12) S. First stage; gained sixteen pounds. Recovered. Is at work.
- (13) T. First stage; gained forty-four pounds. Recovered. Is at work.
- (14) B. Third stage; gained forty-six pounds. Recovered. Is at work.

While it is true that increase of flesh is always desirable in the treatment of pulmonary consumption, it is a mistake to hold that every patient of this kind must make prodigious gain before recovery can set in. On the whole I believe that women are less inclined to gain than men, and I have known members of the former sex make an uninterrupted recovery without increasing in weight.

In summing up the principal points in this paper it appears that the fat of the body is manufactured out of carbo-hydrates, proteids, and fats; that for fattening purposes proteids and carbo-hydrates are superior to fats and oils; that the latter are overrated in the treatment of pulmonary consumption; that carbo-hydrates and fats hinder and proteid foods accelerate metabolism; that

rest of the invalid promotes the formation of fat, and that exercise retards it; that in all probability the production of fat in the body is largely under the control of the nervous system; and that strychnine through its stimulant action on the nervous system fattens the consumptive, and increases the number of his blood-corpuscles.

EVISCERATION OF THE EYEBALL.*

BY L. WEBSTER FOX, M. D.,
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Abstract of a paper read before the American Medical Association, Ophthalmic Section, held in Baltimore, May 7, 1895.

This operation must not be confounded with abscission, although both are somewhat similar in character. The latter operation has been abandoned by the majority of ophthalmic surgeons on account of its risks.

Evisceration consists in first excising the cornea and thoroughly removing the contents of the globe and replacing the vitreous with a glass globe.

Abscission of the cornea, as suggested by the older Critchett, was probably the best of a dangerous operation. In it no attempt was made towards emptying the contents of the globe.

We are indebted to three English surgeons for bringing evisceration prominently before the notice of the profession practically. Mules' (of Manchester) first operation was performed in October, 1884. Brudnell Carter, who modified the abscission operation of Critchett some years ago, is now one of evisceration's most ardent advocates—while Bickerton, of Liverpool, performs it exclusively.

Frolich was the first surgeon to perform evisceration. This he carried out in 1881 and named it "Excochleation." Muldon and Graefe carried on their observation in 1884, while Dubanton followed next with a series of experiments.

I shall not review the literature on the subject, as it has been most carefully done by my friend, Dr. G. Oram Ring, in a very recent article on the subject. My remarks shall be limited to my personal experience with some cases.

In 1885 I performed the operation twice in the Germantown Hospital, but the reaction was so great, including tremendous swelling of the orbital tissue and eyelids, great pain and an elevation of temperature (105 degrees in one patient, 105.5 degrees in a second) I felt that discretion was the better practice and removed both glass globes, later on removing the small stumps of the atrophied eyeballs. During the summer of 1893, while in Liverpool, Mr. Bickerton brought to my notice three patients upon whom he had recently operated. The cosmetic effect was so beautiful that I again became deeply interested and gathered renewed courage at his success. I also had the opportunity of witnessing the operation at the Liverpool Infirmary by Mr. Bickerton, and also the after treatment. To see a skilled operator carrying out the technique of an operation is infinitely better than to follow the details of a written description, be it ever so clear and concise.

The third patient (1) upon whom I performed this operation, June 29, 1894, at the Medico-Chirurgical Hospital, was a young Assinaboine Indian from Montana, now at the Carlisle Indian School. He was brought to the hospital by Dr. Montezuma to have the eyeball enucleated on account of pain and much discomfort. As near as we could get at the history of the loss of the eye, it was this—about three years previously while on the plains an inflammation of the left took place, which gradually progressed to an ulceration of the cornea, and finally, to complete destruction of this part of the eye. Instead of removing the eyeball, a Mules' operation was performed, under ether. The details of the operation were carried out without complication and the patient put to bed.

* "Evisceration of the Eyeball, reported in the University Medical Magazine, April, 1895.

(1) Reported in Codex Medicus, Philadelphiae, November, 1894.

The orbit was examined after 24 hours—no untoward symptoms were present, excepting a slight swelling of the upper eyelid. Towards evening the eyeball became somewhat painful and the patient did not rest well during the night. Temperature, 102 degrees. The next day the temperature fell to 99 degrees. More swelling of the eyelids appeared with considerable chemosis of the conjunctiva, but no discharge of pus. Chloral and a bromide were given to quiet the pain, and hot fomentations were applied to the eyelids. On the third day the conjunctiva became very edematous and protruded between the eyelids, otherwise the patient's condition was about the same as before. The internal treatment at this time was hydrarg. bichlor., gr. 1-32, potass. bromidi., aa gr. x, three times daily. To the protruding conjunctiva pressure bandages were applied, which restricted the protrusion. The temperature fluctuated about the 99 line until July 7, when it fell to normal, and the various inflammatory conditions subsided. At the end of the week I removed the stitches from the conjunctiva. The sclerotic swelling did not subside for ten days, when the pain disappeared, and at no time during his residence at the hospital did it return.

The operation was entirely successful, affording a beautiful support for the artificial eye, which was adjusted July 18. The artificial eye stood out full and prominent with almost perfect movement—a decided improvement over the result of the old operation of enucleation.

Case 3. Operation performed October 26, 1894, on a young woman, a patient of Dr. Frutchey. She had been wearing an artificial eye over the blind eye for several years; the result was that she had symptoms of sympathetic irritation, and pain in the partially atrophied eyeball. The operation was carried out in detail, as above described. Upon removing the cicatricial cornea I found the scleral cavity filled with a bony mass, round and shaped exactly like a small acorn. This growth of bone was also a very important factor in the causation of pain. The bone was

growing larger and the sclerotic coat was restricting its growth, hence the pain. The bone was removed without difficulty and given to Professor Laplace for microscopic examination. The patient had no untoward symptoms; the temperature ran up to 101 degrees the first day after the operation, and one-third to one degree above the normal line, but no visible change followed—the patient leaving the hospital in 12 days. In this patient there was no reaction, no swelling of the eyelids and the conjunctiva but very slightly chemotic. The artificial eye stands out on a level with its neighbor, the movement is perfect, falling but little short of normal.

Case 4. Young woman, age 22, admitted to the hospital on account of an irritable left eye, staphyloma of the cornea—eye useless. On account of the repulsive appearance of the eyeball the patient desired its removal, so as to replace it with an artificial eye.

The operation was performed under the same antiseptic precautions, with little or no reaction, no swelling of the eyelids and only a suspicion of edema of the eyelids. Owing to a difficulty in matching the right in color the artificial eye is not quite large enough. The movement is exceedingly good.

Case 5. Male, age 33. In September of 1884 was struck in the left eye by a brass spring, puncturing the sclerotic, from which exuded a bead of vitreous when brought to the hospital. The vitreous was snipped off and the scleral wound was closed by stitching over it the conjunctiva. The eye became involved in a general uveitis, with a result of total loss of vision and slight shrinking of the eyeball. I examined this patient about once a year, and during the ten years no inflammatory change took place in the eyeball. The hyperopia was fully corrected in the right eye and glasses worn. In January 13, 1892, the following note was made in my case book: "The sclerotic scar visible, though the conjunctiva no perception of light, total posterior synechia, lens cataractous, no

perception of light. Tension—1, eyeball manifestly shrunken, no pain nor irritation." On December 26, 1894, the patient came to see me on account of considerable congestion of the left eye, and slight pain on pressure. The result of the examination revealed sympathetic irritation. The patient was placed on active mercurial treatment, which reduced the active symptoms; both eyes became perfectly quiet. Having had this warning I advised the evisceration operation, which was performed February 2, 1895, at the Medico-Chirurgical Hospital. The operation was witnessed by Drs. Risley and Carpenter, two members of the association. The case made a very good recovery, with little or no reaction; the only defect is a slight gaping of the conjunctiva and sclera, owing to the central stitches of both conjunctiva and sclera giving way and allowing the glass globe to be visible. The patient is, however, wearing an artificial eye, and no inconvenience has become manifest up to the present writing.

Case 6. Child, female, age 11. Staphyloma of the cornea of the left eye, due to an ulcer of the cornea three years previously; since then the cornea has developed into a very large staphyloma. The operation was performed May 3, 1895. At the present writing the patient is doing well. The details of the operation are carried out under ether. The eye is thoroughly irrigated with a lotion, which I call formula 1, to designate it from almost the same formula for sterilizing instruments. The eyelids are separated with the ophthalmostat. The conjunctiva is dissected from its corneo-scleral attachment back to about the equator of the eyeball, the muscle not being interfered with, then the cornea is excised. This is best done with a large Beer's knife, as in performing a flap operation for cataract the lower half of the cornea is removed with a curved scissor and the contents of the globe taken out with a small scoop, devised for the purpose. Great care is necessary to remove the ciliary bodies and choroid and the head of the optic nerve, leaving the clean white sclera.

Mr. Carter has devised a rubber bulb, which is inserted into the scleral cavity and inflated with air to produce pressure on the central artery to prevent hemorrhage. As this application has not been a success with me, I pack the scleral cavity with sterilized cotton. After waiting a few minutes this is removed, and the contents of the scleral cavity is again thoroughly irrigated with a hot antiseptic fluid. A sterilized glass globe, which is best suited to the case, is then inserted with a specially devised instrument, the sclera is split vertically, so that the edges may be drawn together and held by stitches of fine catgut, completely hiding the glass ball. The orbit is again thoroughly irrigated with a hot solution and the socket packed with sterilized cotton, over which is bound a sterilized bandage, and the patient put to bed.

Formula 1:

Irrigating Fluid.

Hydrarg. Bichlor.....	gr. 1-50
Zinci Sulphi-carbolatis	grs 30
Aq. Menth. Pip.....	drs. 11
Aq. Camph.	
Aq. Destil. aa	fl oz. 11
M. Sol.	

P. S.—The same formula as the above, without the hydrarg., is used for sterilizing instruments.

In case 5, instead of using black silk to suture the sclerotic coat, sterilized catgut was used. Whether the knot became untied or whether absorption took place too rapidly, causing gaping of the wound and thus allowing the glass ball to press upon the conjunctival suture and cause it to tear, I am unable to say, but from whatever cause the glass ball is visible. The patient is now wearing an artificial eye without any inconvenience.

When the operation is performed under strict antiseptic precautions very little or no reaction follows, and the result, as Mr. Mules states, "are not as disturbing to the normal relation of the parts outside of the sclera as in enucleation." Dubanton and Graefe arrive at these conclusions, "that the procedure equalled in value enucleation in sympathetic disease, was safer as regards danger of purulent meningitis, can be performed in

panophthalmitis, and that whenever done a better stump is always secured."

If we have in evisceration a method equally as safe as in enucleation we certainly have in addition the advantage of giving better support to an artificial eye, getting rid of the sinister stare, the enophthalmus and more perimetric rotation, with no disagreeable muco-purulent discharge so common after enucleation.

1304 Walnut street.

THE PATHOLOGICAL ASPECTS OF STEVENSON'S WAVE.*

BY A. W. JOHNSTONE, M. D., CINCINNATI.

Until within the last ten years every manifestation of hysteria was supposed, by the older writers, to be due to a nervous reflex, whatever that indefinite term may mean. This was supposed to be a pathological influence which was carried by the nerve fibres to various parts of the body, just like the derangement of the switchboard of one of our modern telephone systems may produce unheard-of complications in the most unexpected places. Such was the older idea of hysteria, that the uterus was the great switchboard and that through its nervous connections the vary phases of hysteria were produced, whenever it became deranged. I do not deny that such conditions still exist, and that some of the reflexes from the pelvis are undoubtedly due to this cause. We all know the rich nerve supply of the pelvis, how it is composed of fibres from both the sympathetic and cerebral systems; how they first unite to form the solar plexus, how the fibres come from both systems to make up the pelvic plexae, and how these plexae in turn are reinforced by ganglion cells of their own deposited all along these nerves, so as to make one of the most complex nervous systems in the body. So that with the solar plexus to start with, which has so aptly been called the abdominal brain, reinforced in this way by various storage batteries, as well as re-

lay cells, it is no wonder that the uterine innervation is such a complex affair. These fibres are distributed not only to the muscular walls of the uterus, but, as some of the later investigators have shown, go to the parenchyma of the endometrium, as well as to the ciliated epithelium, and some of these ultimate fibres seem to have enlargements in the very periphery of the epithelium, which closely resemble ganglion cells, so that the uterus is supplied with one of the richest of all nerve systems, instead of being almost barren of nerves, as at one time taught. The ovaries and tubes are supplied in the same way. So that if you derange any part of the pelvis with an inflammation or new growth, you immediately disarrange a wonderful electric apparatus. The results of these derangements will be described in a far better way than I can do it by many of the specialists who are to follow me. This paper is to be more of a hydrostatic nature than of an electric, if you will allow a comparison from physics.

We have in the Stevenson wave an additional source of trouble, which, in my belief, produces the vast majority of the so-called hysterical manifestations. Many of you who have not been keeping up with the literature of gynecology may not understand thoroughly what this wave is, and on their account those of you who are already familiar with it will bear with me while I briefly explain it. Professor Stevenson, of Aberdeen University, has shown that there is a congestion wave running through the female pelvis, whose cycle is 28 days. We will take the starting point of this circle directly after the flow has ceased. For about 17 days we have almost an anemic condition of the pelvis, and if it were run out on a chart you would find a low level plateau, as it were, in the tracing, which has almost no undulations until about the 17th day. About this time the pressure begins to increase, but it is slow until about the 23d day. Then, however, the ascent is much sharper, because the pressure has become much greater,

* Read before the Obstetrical Society of Cincinnati.

and it increases very rapidly until the flow begins, at which time it is at its greatest. From this on it diminishes very rapidly until the flow ceases, at which time it has fallen back to the starting point of our original low plateau. This has been proved by delicate dynamometers. In addition to this blood pressure with the cycle of 28 days, which so closely resembles the wave of sleeping and waking, we have an urea wave and a carbonic acid wave, which, although not exactly coinciding with the pressure, follow it very closely. This means that we have an increased oxidation going on a short time before the flow begins. The necessity for all this is found in the fact that every child-bearing human female carries enough nourishment in her blood for two persons, and she must get rid of it or she will become clogged. The menstrual flow is simply to wash away the over-ripe corpuscles in the endometrium, which are put there for the manufacture of the placenta. The oxidation is to get rid of this albuminoid material, with which the blood has become too rich, and the carbonic acid and urea only mean the smoke and the ash from this condition of combustion. Many think this condition of things a kind of monstrosity in zoological life, but it is simply an analagous state to the old process through which all animals go in waking and sleeping. Most animals sleep about one-third of their time, and there is an increased pressure during waking and an anaemia of the brain during sleeping. So that in an animal which has risen on its hind feet, and thus cannot handle the physiological growth of the endometrium with the lymph stream and where a blood stream is necessary to cleanse it, all that nature has to do to produce menstruation is to introduce one of these same cycles of congestion and anaemia and let it run 28 days in the human being and three or four months in the monkey to accomplish her results. So that after all menstruation is not a monstrosity in zoological life, but simply the result of the erect position, and a development rather than a useless burden. Thus, then, the Stevenson

wave has three elements for mischief in already weakened organs: First and foremost the increased hydrostatic pressure, then an increased amount of work in the excretion of urea, and in the excretion of carbonic acid. To take an illustration of what I mean, the Holly system of water pressure is an exact reproduction of the female mechanism. When nothing is wanted but the ordinary water supply, you all know the engines are run at only half speed, and many of them at only one-third and one-fourth speed. However, in the small towns where this system is used, regular fire engines have been done away with and when a fire alarm is turned in the engineer is immediately notified and he at once speeds up his engines at the regular pumping stations, so that the water pressure throughout the whole system is doubled or quadrupled, thus giving the fire pressure. This is exactly what happens in menstruation. But in order to stand this pressure the whole system must be equally strong, so that the whole system of a woman is adapted so that it stands the increased pressure of the Stevenson wave in the pelvis without deranging the rest of the system. If, however, there should be some weakened point in the water pipes when these engines are turned on to their full speed, something gives way at some part of the system, and the water is allowed to escape at points where it is not expected and the consequence is a reduction in the pressure everywhere. Should one pipe become plugged when this increased pressure is going on the pressure is increased in proportion to the amount of the system that is cut off. And these are exactly the conditions that we have in vicarious menstruation. I have been studying the subject closely for the last ten years, and wherever I find a regular vicarious menstruation it has been my habit to send the patient to some specialist on the organ through which the vicarious outlet is made, and I have never failed yet to have the report made me that a pathological lesion was found, that some little vascular growth or some abrasion in

which there were little weak, delicate vessels, was found, and the curing of this condition has never failed to cure the vicarious menstruation. Associated with it there is nearly always more or less inflammation of the uterus, which has toughened the endometrium so the blood cannot find free egress, and the consequence is that I have had to work in conjunction with these various specialists of the nose, throat, ear and so on, and by our combined work of curing pathological lesions wherever found we have cured both these pathological conditions and restored the patient to the normal condition. Speaking of alterations of pressure, the amenorrhoea of phthisis, protracted fevers and all forms of low constitutional conditions are easily understood. The vital forces are simply not strong enough to get up the requisite pressure necessary to rupture the small vessels of the endometrium. Many of these cases, as you all know, have the nervous disturbances of menstruation, but simply lack the flow on account of not having strength enough to get up the requisite pressure. Taking this vicarious menstruation as a picture of the whole subject, the vast majority of hysterical manifestations are easily explained. The next most striking illustration of these are the congestions of the liver and the rest of the chylipoetic system which is such a universal accompaniment of pelvic mischief. So much is it the case that I have laid it down as an axiom almost that nine out of every ten women who have had habitual bad digestion for years have some pelvic mischief as the prime cause of that trouble. You may think this a strong statement, but my case book makes it rather short of the mark than over it. I have found no less than three cases, which have been diagnosed gastric ulcer by the most prominent men in this city, that were completely cured of all gastric symptoms by removing the pathological condition in the pelvis. I have even seen two of three cases of severe hepatic congestion, which good men had gone so far as to diagnose as biliary colic, that were completely cured by re-

moving their pelvic disorders without the slightest attention to the hepatic condition. In fact, it is a rare exception to find a woman with pelvic mischief who has good digestion. And if you will study these indigestions in the light of the crest and trough of the Stevenson wave, you will find that somewhere in its cycle they are always aggravated. In the vast majority of cases it is at the crest of the wave that the symptoms are increased, but in some it is in the trough of the wave, showing that it is an anemic condition that the system resents rather than a congestive. The most striking case of the anemic side of the wave producing mischief that I ever have seen followed a laparotomy. It was in a very highly educated woman, in fact one of the most intelligent that I ever saw, with an extremely sensitive nervous system. Everything went well with the operation until the tenth day, at which time the menstruation ceased. Coincident with its stopping the patient began vomiting, something that she had not done at all up to that time. There was no elevation of temperature, there was no constitutional disturbance, there was absolutely nothing but an acute indigestion. For 24 days to the hour absolutely everything that the patient put into her stomach was rejected, with the most terrific fermentations going on with everything. Had it not been for rectal alimentation, I am sure she would have died. It was three years ago right now, when I was just beginning to study the effects of the Stevenson wave, and after a week of this vomiting I came to the conclusion that my only hope was that it was due to the anemia of the solar plexus, due to the weakened condition of the patient, who had been an invalid for months before this sudden violent disturbance of the operation. One of the best men in the city was associated with me at the time, and I told him that our only hope was to keep the patient alive until the 28 days rolled around. On the 24th day to the hour the patient called for solid food, ate it with a relish, and for the first time digested it, and

from that day to this she has not had another vomiting spell. The patient has become fat, hearty and strong; in fact, for the last two years she has had absolute perfect health, when previously she was noted as the frailest woman in her county. While we are on the anemic part of the wave, there is one other condition which is undoubtedly due to it. That is inter-menstrual pain. You have all seen it, and many have found it to go on to such an extent as to produce convulsions. From the sixth to the 14th day after menstruation the pain starts in, and continues until unconsciousness is produced simply from pain and nothing else. This I have always found due either to adhesions, which are put on the stretch by the shrinkage of all the pelvic organs, or else while no adhesion is present, to a very hard parenchyma of the ovary, in which some of its sustentacular tissue is put on the stretch by this shrinkage. It can be laid down as an axiom that an abdominal organ which is already weakened is very apt to be aggravated by the irregular flow of this wave. You can easily see how this is the case. By inflammation the endometrium is hardened, so the accustomed outflow is in many ways interfered with, the pressure in the abdomen becomes greater, and the result is that any organ which is already weakened will probably resent it. So then in every periodic indigestion of every sort, size and description, the pelvis should be carefully examined. The abdomen, of course, catches the brunt of this pressure, for there it is normally at its greatest, but it is by no means the only place. The heart and lungs are interfered with by increased congestion. Occasionally you have a patient tell you she had difficulty of breathing at such times. But the play of the chest is so great and the work of the lungs so simple that this can easily be compensated for in the majority of cases, and chest troubles are by no means so frequent in complications of pelvic disorders as are diseases of those organs which lie in the cavity just beneath it. In the brain, however, we have a different state

of affairs. The firm cranial cap will not allow for this increased pressure, and its organs simply have to stand as best they can whatever crowding this wave may give them. It has been my experience to find that menstrual headaches are much more common where the menstruation is scanty than where it is excessive, and I believe they are due directly to this same obstruction to the outflow of menstruation, thus causing reflected increased pressure in the brain. A beautiful demonstration of this I have seen twice, and that is an intermittent glycosuria which always followed a menstrual headache. So far as I know the symptom has never been described heretofore, and I may well take up part of the time in a careful description of it. Both cases had badly diseased appendages, and within a few hours after the onset of the menstruation in one case and the day before the starting of the flow in the other case, the most ferocious headache would begin. In both cases this had existed for several years. In the examination of the urine, preparatory to the laparotomies which followed, I found sugar present in the first case. It startled me and I postponed the operation. I watched the case carefully and to my surprise, in the course of three or four or five days after the headache had ceased, the sugar had entirely disappeared. Daily examinations of the urine showed no more sugar until the next menstrual epoch. The headache began as usual, but the sugar did not show up immediately. After the headache had lasted about 24 hours a slight trace of sugar was found, which increased rapidly until about the time the headache disappeared, about 48 hours from its inception. The sugar then continued for two or three days, but in rapidly diminishing quantities, to finally disappear again with the complete cessation of the flow. Finding it was of the intermittent character, the operation was done; menstruation was stopped, the headaches did not recur and the sugar has not since been found. The history of the second case is merely a repetition of the first. Its produc-

tion you all understand. The increased menstrual pressure, not finding its wonted outlet through the endometrium, gave a reflex pressure, just like the plug in the water pipe, and increased the cranial pressure. This continuing steadily and constantly, increased the pressure in the floor of the fourth ventricle, and the old class-room experiment was repeated by the inhibition of the pneumogastric nerve, thus giving an interference with the glycogenic function of the liver. Understanding this, menstrual headaches are plain. Admitting this periodic disturbance of the intra-cranial pressure we have a potent factor in the etiology of recurrent mental and convulsive manifestations. Granted an increased pressure in the floor of the fourth ventricle, the modifications of the disc and retina are easily understood, and the varying amblyopias are easy of explanation. Interference with the ear is made more easily comprehensible, and disturbances of the sense of smell are equally well understood. While speaking of the urine, there is one other condition that I have seen, and that is the casual albuminuria, which is undoubtedly produced by these aberrations of the menstrual pressure, and I have gotten now to the point of searching much more carefully in a case of simple albuminuria and am not satisfied on this symptom alone that there is a true Bright's disease present, for, like the sugar, it is occasionally produced by congestion where there is no real pathological lesion of the kidney.

I have spent so much time on the hydrostatic part of this that I will have to leave to the general practitioners following me the elaboration of the urea and carbonic acid waves, but you can all easily see how that the increased work thrown on the respective organs may be sufficient irritation to determine an organic mischief in an organ which has a predisposition in that direction. The fact that five per cent. of all female lunatics are cured or benefited by attention to diseases of the pelvis is a strong proof of this argument. In conclusion, I must say the discovery

of the Stevenson wave and its benefits to the modern medical man in the elaboration of these feigned diseases have been surpassed by nothing in modern days, and equaled in its benefit to our calling only by Harvey's immortal discovery.

TREATMENT OF PULMONARY PHTHISIS BY INJECTIONS OF GUAIACOL.

M. Le Tannuer has employed subcutaneous injections of guaiacol in sterilized oil for about three years. His method differs from that of Professor Burlereaux only therein that he employs guaiacol instead of creosote, the former being the really active principle of the latter. His formula has been 5 centigrams of guaiacol and 1 centigram of iodoform to 1 cubic centimeter of sterilized oil. He begins by injecting 1 c. c. m. every two days, gradually increasing up to three or more every two days, according to the sensibility of the patient. He reports excellent results, the incipient cases all being cured and the more advanced partly cured and partly very much benefited and relieved of the annoying symptoms, as expectoration, cough and night sweats.—*Journal de Medecine de Paris.*

AVERAGE DURATION OF LIFE AMONG PHYSICIANS.

A curious statistical record has been compiled by Dr. Salzmann, of Essling, Wurtemberg, on the average duration of life among physicians. He found, in going over the ancient records of the kingdom, that in the sixteenth century the average duration of life among this class was but 36.5 years; in the seventeenth century, 45.8; in the eighteenth, 49.8, and at the present time they reach the favorable average of 56.7. It appears from the foot-notes to the above that this very great increase in longevity is due to the disappearance of the "Black Pest," the introduction of vaccination, and the great diminution in the number of typhus epidemics, three classes of diseases formerly the especial scourges of medical practitioners.—*Am. Pract. and News.*

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EXPERT TESTIMONY.

If by any chance the Buchanan case should lead to a reform in the matter of expert testimony in criminal cases, it will have served one good purpose. Nothing more vicious than the present method of pitting experts against each other, one being paid by one prosecutor and the other by the defense, can be imagined. It strikes at the very root of impartial scientific investigation.

Each expert is made a partisan so far as his conscience will allow, and when his obstinacy has been irritated by opposition he will sometimes go to lengths that would previously have seemed impossible to him.

All this is suggested by the announcement of one of the experts for the defense in the Buchanan trial that he has completed a series of tests which, if they had been made earlier, would have destroyed the case of the prosecution.

The charge was that Dr. Buchanan

killed his wife with morphine and atropine. The expert evidence for this was based on color reactions obtained from the contents of Mrs. Buchanan's stomach 64 days after she was buried. They were said to be unmistakable, and were made by Professor Witthaus, who was corroborated by Dr. Doremus.

Now comes Dr. Walter T. Scheele, an expert for the defense, and says that the same color tests have been obtained by him from ptomaines treated in the same manner. Ptoamines are alkaloids which are produced in a body during the process of decomposition. Dr. Scheele took two rabbits, killed them by suffocation, and buried them in earth from the cemetery in which Mrs. Buchanan had been buried.

After 64 days he dug them up and extracted the animal alkaloids. These he subjected to the tests which had been applied in the Buchanan case and held to be conclusive proof of the presence of morphine, and he obtained the same results that had been had in that case. On Monday he performed some of these experiments in public, all of which seemed to corroborate the position he had taken.

Now whether all this is genuine, new information, or merely another effort to save this man condemned to die for murder, in either case it suggests the defect of the present system of pitting expert against expert and practically offering a premium for confusion of truth rather than a clear exhibition of truth. When the State shall pay an expert chemist, or several, if need be, and they shall be set to work at such cases merely to find the facts instead of to defend an opinion announced in advance, justice will gain a great advantage and science will be relieved of a burden that is sometimes hard to bear.

DIPHTHERIA ANTITOXIN IN SCARLET FEVER.

The above subject was the title of a paper read before the Children's Section, in the recent meeting of the

American Medical Association. The writer cited a case of scarlet fever, pure and simple, with well-marked angina of the tonsils, in which he had used antitoxin with very beneficial results.

In commenting upon the above assertions we must accept the diagnosis given as being correct, and that no diphtheria poison was present in this case, inasmuch as the benefit was noted by a diminution of the rash and fever symptoms of scarlatina.

We have often seen analogy between the throat affection of scarlatina and that of diphtheria, the one often supervening upon the other, but we have no doubt that the two diseases are controlled by different poisons. Where, then, shall we base the theory on which the cure of diphtheria by antitoxin is supposed to depend? If we can cure scarlatina or other exanthematous disease by the introduction of diphtheria antitoxin serum, what has diphtheria to do with it so far as regards its toxic properties?

Theoretically we have been taught that diphtheria antitoxin was the natural antidote to diphtheria virus, and was developed in the blood of immunized animals; that it had a special action antagonistic to the diphtheria poison; hence, we should look for its use in this disease alone. Moreover, it would be theoretical to infer that an antitoxin which would successfully combat scarlatina must be developed from the scarlatinal poison, otherwise we must argue that it is not necessarily the diphtheria virus which develops an antitoxin, but that some element exists in the blood of naturally immune animals that is antagonistic to the development of any of these diseases and which we inject into our patients.

The results obtained from experimentation and from the clinical use of diphtheria antitoxin warrant its trial in every severe case of the disease, but we must be careful when we draw theoretical inference from such experimentation of clinical data that we do not run into serious error in establishing a foundation for serum therapy.

CHEMICAL BEEF STEAKS.

The success of Dr. Lehner in manufacturing artificial silk, and the progress made by chemical science in imitating various food products, suggest to a contemporary that scientists may some day succeed in manufacturing toothsome beef steaks direct from the natural elements without the intervention of the cow or the steer. This idea is startling, but not entirely new.

We remember reading, some years ago, one of those novels similar in plan to "Looking Backward," forecasting what may happen in the future, and one of the predictions was that in a few hundred years from now no domestic animals would be kept by civilized people. Electricity, utilized by means of storage batteries, would supersede the horse as a traction animal, and all kinds of meats, poultry, eggs, butter, etc., would be manufactured by chemical process.

If this could be done of course vegetable substances could be imitated, and it might be possible to produce wheat, potatoes, fruits, etc., directly from the mineral substances and the water and the air, thus superseding the necessity of agriculture. In order to provide against the ultimate exhaustion of the coal and wood supply it will be necessary, sooner or later, to discover a process of collecting electricity directly from the earth or the clouds, or the sun, without invoking the aid of steam power—or else the water powers and the tides of the ocean and the winds will have to be harnessed and utilized for that purpose.

The latter is no doubt feasible, and in time the world may be lighted, and heated, and furnished with motive power without the employment of coal or steam.

In that distant day, when meats, and fruits and vegetables are produced by chemical action, and the motor power to do the world's work is supplied by the natural forces, much of the uncertainty will be eliminated from human life. There will be no crop failures on account of too much or too little rain, early or late

frosts, untimely heat, hail or cyclones.

There will be no pleuro-pneumonia, glanders, epizootic, foot rot or other diseases among domestic animals, because there will be no necessity for domestic animals. The quantity of everything required can be calculated and produced to a mathematical certainty, and it ought to be easy to eliminate poverty, starvation and misery. The fields could be converted into pleasure gardens, and the people would be able to exist with only a nominal amount of work, and that of the higher grade, as electricity, through the medium of varied machinery, would do all the rougher kinds of labor, and perhaps everything except that which involves intellectual processes. There is, in fact, hardly any limit to what may be accomplished if the human race is permitted to occupy this terrestrial globe long enough to completely explore the secrets of nature. The possibilities of the future constitute a field in which the imagination may run riot without trespassing upon the domain of the impossible.

We may even find a way to absorb chemical elements sufficient to support life without the trouble of eating, and to forestall decay, resulting in perpetual life.

THE INTERESTS OF THE POOR ARE THE ONLY INTERESTS WORTHY OF CON- SIDERATION.

Dr. Champneys, in the London Lancet, while dwelling on the subject of the registration of midwives, which has been agitated for so long in England, gives the following tribute to the nobility of the medical profession:

As doctors we have a right to exist only so long as we are required. Midwives have precisely the same claims. If they are required they will exist; if they cease to be required they, like us, will cease to exist. Doctors are made for the sick, and not the sick for the doctors. A pa-

tient is a person who requires a doctor; a doctor is not, in the same sense, a person who requires patients. A patient is not, primarily, an organism for excreting so many guineas or shillings per annum as an aphid exudes syrup at the titillation of an ant, or a cow secretes milk under the blandishments of a dairymaid. This is a fact often forgotten. If a poor woman requires a doctor for her confinement she can have one. If she prefers a midwife she can have one—trained, certificated and comparatively safe; or she can have one untrained, uncertificated, ignorant, skeptic and fatal.

Besides this, our profession claims or accepts without protest the title of "noble," which is often bestowed on it. To what does it owe its nobility? Surely to the unselfishness which is one of its best traditions. Our profession glories in postponing its private interests to the good of the public. It has abolished profit making by secret remedies, and has come to look upon it as really (and not in the sense of the General Medical Council) "infamous." Why is it more infamous for a medical discoverer to make money out of his secret knowledge than for a man in business, such as a brewer, to do the same? Simply on account of this claim of "nobility." In what other profession can you parallel the enthusiastic propagation of the great class of remedies which began with Jenner's vaccination, and have been so marvelously extended at the present day; or of the wholesale benefits of preventive medicine? It is to be remembered that every such improvement means, in the first instance at least, loss of income to the whole profession. And yet no medical man has ever been known to protest against measures for the preservation of life and health, "though it were to his own hindrance." I confess that the bacillus of cholera seems to me to stand on the same footing as those of septicemia, and that the profession whose glory it is to endeavor to destroy the one should not regard with levity the chances of the spread of the other. I have said that our profession

stands alone in its attitude in this respect. Yet I imagine that other professions, which make no such claim to pre-eminent virtue—as, for example, the legal profession—would stand aghast at a proposition which would be likely to set their fellow countrymen by the ears, even if they saw their own profit in such an event. I think that there is little “nobility” to be seen in the present agitation.

Book Reviews.

PRACTICAL CHAPTERS ON STATIC ELECTRICITY. By S. H. Monell, M. D., New York, Editor Electro-Therapeutic Department of the “Times and Register.” Collected and reprinted from various medical journals. Published by the Galvano Faradic Company, New York. Price, 25 cents.

This little monograph gives a resume of much of the work done by Dr. Monell on static electricity, in which department he stands among the foremost of his colleagues. It is exceedingly valuable to any one interested in electricity as a therapeutic agent and its low price will enable the readers of this journal to secure it.

THE PHYSICIANS’ GERMAN VADEMECUM. By Dr. Richard S. Rosenthal, Chicago, Ill. Published by the Rosenthal Company. In two volumes. Price, \$2 each.

This little work is intended to teach German to physicians or at least so much of it as is applicable to its use among foreign patients. It is quite complete, but by no means as efficient as a through course in German. It is quite analagous to the physician’s interpreter in the work published by ourselves entitled “Physicians’ Vademecum,” which also includes French.

BOOKS AND PAMPHLETS RECEIVED.

CELIOTOMY FOR PUERPERAL SEPTICEMIA AND PERITONITIS. By Charles P. Noble, M. D.

Reprint from the American Gynecological and Obstetrical Journal.

THE DIAGNOSIS OF PREGNANCY DURING THE FIRST THREE MONTHS. By Charles P. Noble, M. D. Reprinted from the Transactions of the Philadelphia County Medical Society, 1894.

REMARKS ON THE TREATMENT OF INEVITABLE ABORTION.

By Charles P. Noble, M. D. Reprinted from Codex Medicus Philadelphiae, October, 1894.

SOME IMPRESSIONS OF GYNECOLOGY IN EUROPE. By Hunter Robb, M. D. Reprint from Western Reserve Medical Journal.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

SUPRAPUBIC FIXATION OF THE UTERUS IN CERTAIN CASES OF RETROVERSION AND PROLAPSE.

Dr. Thomas Keith (London Lancet, September, 1894) describes an operation for cases of intractable retroversion and prolapse which has proved efficacious in his hands. The uterus is pushed up against the abdominal wall with a sound, and a small opening made over the fundus a little larger than sufficient to admit the forefinger. Guided by the finger the right round ligament is seized by forceps and slowly pulled up with the broad ligament until the ovary is reached. This is brought out with as much of the broad ligament as will come, and the pedicle drawn together by a small silk thread and tied. The stump being held by forceps, the abdominal wound is accurately closed with several sutures, care being taken not to strangle the stump. This is dried with perchloride of iron, and the ordinary clamp applied on a level with an encircling ligature, so that the tissues

do not spread out, and there is thus a slender stump left to separate. In none of the cases has there been a trace of hernia, and no wound has ever suppurated. Dr. Keith has done the operation 34 times, and his son, 17, and all the patients were cured permanently.

The advantages of the operation are, that the uterus being attached only by the right ligaments has freer movement than by any other method; there is less risk to life, as there is no invasion of the cellular tissue by needles and stitches; and the fixation is more sure as the ligament is fastened into the wound, whereas simple peritoneal adhesions may become absorbed. The only objection is the loss of one ovary, but one ovary seems to be as useful as two. The right ligament is chosen, because if the left is taken there is generally more tension on the bowel. The advantage over the Alexander is, that the latter has only the round ligament to depend upon, while this has all the tissues that go to make up the broad ligament, and all covered by peritoneum.—*Boston Medical and Surgical Journal.*

TURPENTINE AS A HEMOSTATIC.

Sasse refers to the but slightly known hemostatic properties of oil of turpentine, though it has met with considerable success in dental practice. He first used it on a patient who for several hours after an extraction had been bleeding profusely. A tampon of wool soaked in the oil led to an immediate arrest of the hemorrhage. Thereafter the author was tempted to employ the liquid in the treatment of scurvy. The gums were hourly painted with the undiluted oil, which was also retained in the mouth for a brief period, and administered internally in small doses. The oral hemorrhage, as well as the co-existing hematuria, gradually ceased, while the patient's health improved. Similarly a hitherto unaffected hemorrhage from the bladder was cured by the hourly administration of an emulsion of the oil. Finally, Sasse quotes several authors who have successfully employ-

ed turpentine in cases of hematuria and hemoptysis. Ferripyrrin, on the other hand, is not only intended to act as a hemostatic, but also as an astringent. It was first produced by Witkowsky, and is a combination of antipyrin, iron and chlorine. It has already been successfully employed by Hedderich as an application to mucous membranes where even prolonged use leads to no destruction of tissue. It can be used as a powder, but preferably as an aqueous solution, 18—20 per cent. in strength.—*The Practitioner.*

A RARE CASE OF HEMORRHAGE.

(*Klinische Rundschau* Jahrgang, viii, No. 1, 2.)

Galtier reports the case of his own son, aged 11, who had such a severe hemorrhage from the nose that the use of tampons were required to control it. As soon as the tampons had been placed in position the boy's eyes filled with blood, the blood having found an outlet through the lachrymal duct.—*Archives Pediatrics.*

HEMORRHAGE FOLLOWING TONSILLOTOMY.

(*Archives-Kinderheilkunde*, B xviii, H 1, 2.)

A 3-year-old girl in whose family the hemorrhagic diathesis was prominent underwent the operation of tonsillotomy. McKenzie's instrument was used. The operation was followed by hemorrhage, which continued for two days, and upon which the use of styptics were of no service. The Paquefin cautery was brought into use, and the bleeding ceased.

Both tonsils were removed from an 18-year-old girl. Severe hemorrhage followed, from which the patient nearly lost her life. The hemorrhage in this case was controlled by the application of tannin. In a search through the literature the author finds that bleeding of a dangerous degree is very rare, and that a death from this cause had never been recorded. Severe hemorrhage appears to take place more frequently in adults than in children.—*Archives Pediatrics.*

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

THE MILLS OF THE GODS GRIND SLOWLY.

The rate of current flow of accurate knowledge respecting medical electricity and its scientific applications to afflicted patients may be justly compared to the calm progression of cold sorghum from the bung-hole of a barrel in winter time. It flows, but it flows slowly! Very slowly, indeed!

When an "average expert" converses on the subject with other physicians who are not "average experts" he wonders if the medical profession have yet heard of the discovery some time back of an agent called electricity, which has already in skillful hands during a brief clinical trial of a hundred or so years exhibited some properties almost as valuable as those of the more fully-tested tuberculin, antitoxine, antipyrine, cerebrine, ovarine, testine, etc.

I speak not of those addicted to the "family battery" habit, but of the true esculapian who keeps abreast of contemporaneous bacteria, and is ever on the alert to add the new resources of foreign laboratories to his armamentarium, who will in suitable cases even go to the length of recommending the bicycle. I have just been consulted about "a very desperate case." Young lady aged 25, unmarried, anemic, pains in calves, tender breasts, palpitation, etc., but never mind the history or the diagnosis. For one whole year she has been invalid. At present her friends expect her to die soon. Her faithful family doctor has told them he has done about everything for her, and he can do no more. The amount of worry she has caused her friends has been colossal. Now, what she needs and practically all her simple case requires is "a little electricity."

As I see her condition the needed electricity presents itself to my mind in the shape of sedative tonic—Bi-

polar applications from a properly selected high-tension induction coil and positive static insulation and spinal breeze. These, together with good food and fresh air, would rapidly make a new creature of her.

"But," she says, "she has tried electricity and she always had a sick spell after it."

Indeed! who did the "trying?" She thereupon soberly informs me that "her physician, who was a great electrician and who even made a specialty of it, treated her several times—outside, with sponges—to bring on her courses, which had left her for a year, and she could not stand electricity—it made her feel awful, and has done no good."

Seriously speaking, this is a sad state of affairs. A mysterious Providence is said, by good authority, to protect children and drunken men; but who can be relied upon to rescue suffering and helpless patients from the maleficent uses of a most beneficent and valuable remedy.

Within a week I was conversing with a skillful general practitioner of 20 years' experience, a man of more than ordinary education and ability. Happening to mention electricity as applied to the development of muscular tissue I saw at once from his remark that his mind dwelt in medical darkness on the subject, although a neatly cased, but small battery was visible in his office. With deferential courtesy I ventured to ask in regard to his experience with electricity, and he replied that he "had used it a good deal when he first began to practice." Yes! but what currents, methods, forms, battery, etc.? Oh, both kinds, galvanic and faradic; but he did not see much advantage in them.

It is like running up against a stone wall to attempt to enlighten the placid ignorance of such self-satisfied supposed knowledge.

A telegraph operator once wrote me from a village in Texas that he "knew all about electricity," and wanted to treat himself for writers' cramp under my directions. A telegrapher may perhaps sum up all human knowledge on this great subject, but a physician should ever open his

mind to seek light, information and grasp the truth.

Converting the heathen is well known to be a long, slow job, but the missionaries of succeeding generations keep at it, and our churches never stop passing the contribution box for foreign missions.

Now the enlightenment of highly educated, hospital trained and dispensary practiced physicians upon the progress of medical electricity and its great and increasing and proved value is a case for missionary labor. Unfortunately neither the constant current nor the ingenious induction coil, nor the highly improved static machine possesses a bacillus to spread its wings and fly forth from the laboratory of some Berlin university into the affections of a hypnotized medical world waiting to swallow it.

It takes missionary work along with the Scotchman's mallet to hammer the facts into the gray matter of the doctor's repository for new and startling intelligence. Electricity itself is one of the swiftest of travelers, but knowledge of its proper medical uses crawls limpingly on its bright career around the world and travels as if harnessed to a tortoise.

Now who is to play the missionary part in this field? Schools ought to do some of it. They teach a little now, but not much. They never will teach more than the rudiments. If they stop fostering prejudice it will be a boon.

So far a few pioneer physicians who have first taught themselves something of electro-therapeutics have done most of the work of propagandism. Teaching will properly always be chiefly done by these and others like them in post-graduate schools, clinics and specially provided courses of instruction. But the real missionary work, the spread of general information on the value of this agent, the building up of a belief in this value among general practitioners, the up-rooting of old prejudices, the out-casting of the pernicious family battery, the substitution of high grade apparatus, the development of a recognition of the differences in form, effect, dose,

methods of production, and wide range of differences in application; and, furthermore, that approved curative results require the proper selection of current, dose and technique, devolve of necessity upon the manufacturer. He alone has a financial stake in the growth of a market for his wares. He alone can employ the resources of advertising, without which the demand for good batteries will be as slow to spread as the demand for overcoats in Africa.

It is the dealer who must live by the sale of his goods who can do most to create an appreciation per se of this useful remedy, and a desire among physicians to know more of its merits and methods of scientific application.

Benefit to both the profession and humanity would result from increased enterprise and activity on the part of reputable manufacturers of electrical instruments.

ELECTRICITY IN THE TREATMENT OF EXOPHTHALMIC GOITRE.

At the recent meeting of the American Medical Association in Baltimore Dr. Robert Newman, of New York, presented a paper on this subject in which he said in part: "Most authors believe that Graves' disease is a disease of the sympathetic nervous system, and medical treatment has been empirical and unsatisfactory. He would only consider the treatment by electricity, which has promised to do more than medicines. Successes have been reported by different authors who have applied electricity in different ways, but most agree that galvanism is the appropriate current to be employed. A dozen or more authorities were cited showing that while all operators gave particular attention to the sympathetic nerves yet they differed in the choice of poles, the regions and ways of application, and in the apparent intention with which they proceeded. All surgical applications of electricity, such as galvano-cautery, electrolysis, cataphoresis, electro-

puncture, etc., were found to give no curative results. Dr. Newman had treated three cases which could be called cured. All were females. The first was a very aggravated one, having previously been for 10 years under the care of an eminent electro-therapist with some improvement from a condition in which her life had been despaired of. She came under the author's observation in the fall of 1893, and was carefully treated by him for one year, when she declared herself well and has since remained so.

Full details of this case were given, with clinical history, symptoms and methods of treatment. Galvanism in several ways was administered three or four times a week. Absorption of the tissues causing protrusion of the eyes was promoted by medical electrolysis. To the eye the negative pole with a saline solution was applied by means of an eye cup, while the positive electrode was held in the hand. A mild current only was tolerated. A negative sponge pad electrode was applied to the thyroid. Applications to the sympathetic were varied in manner. The solar plexus was especially influenced.

Case 2 resembled the first, but was less aggravated. Galvanic treatment was pursued for nine months with marked improvement. The third patient was an opera singer whose mother had died of Graves' disease, and who had gradually failed under medical treatment till she was obliged to resign her profession. Galvanic treatment was begun by Dr. Newman in December, 1894. In less than four months all symptoms have disappeared and the lady considers herself well and ready to resume work. In this case uterine complication existed together with marked anemia.

The galvanic treatment was supplemented by the static spray with excellent effect, the latter being given twice a week.

In conclusion Dr. Newman believed that treatment should be more comprehensive than was usual and should be directed also to symptoms and complications. Complications

were anemia, emaciation, insomnia, uterine affections, irritability, edema, fainting spells, etc.

The indications for treatment were:

(a) To reduce the pulse, regulate the heart action, produce rest and sleep and allay nervous irritation.

(b) To diminish the size of the thyroid gland.

(c) To remove the plastic new formation behind the eyeballs, as otherwise the protrusion of the eyes and consequent deformity of expression cannot be relieved.

Treatment must include the pneumogastric. Current strength must be regulated according to the toleration of each patient. The operator must exercise great care in slowly increasing the E. M. F., and every step of increase and decrease must be made with care. The exact measure in milliamperes of the dose cannot be stated, but is governed by the individual sensation.

In some cases and about the head two milliamperes may be too much, while other cases and in other applications 20 to 30 may be endured. It is also essential to regulate the dose in the same patient according to the region treated, the size of the electrodes, the resistance between the two poles, etc. My treatment therefore would be galvanism to the sympathetic and pneumogastric in such form as to reduce the pulse and regulate the heart action. In other diseases galvanization soothes to such a degree that patients may fall asleep during seances. Static electricity properly and skilfully applied will render important assistance as a sedative tonic.

The thyroid gland will almost certainly be reduced by the negative pole of the galvanic battery.

Surgical means have not been successful. Complications must be treated in accordance with indications. In employing static, sparks should be avoided, and applications confined to insulation and the breeze.

These also should be avoided: Too strong currents, too long and fatiguing sittings, internal electrolysis and surgical electricity.

The faradic current was deemed

contra-indicated by Dr. Newman. With regard to general rules the author advised also the avoidance of excitement, over exertion, emotions, stimulants, strong tea and coffee, and concludes by remarking: "It is evident that the treatment and especially the application of the electricity must be entrusted to an expert, and that the family battery for self-use (or abuse) is entirely out of the question."

Wayside Notes.

By E. B. Sangree, M. D., Philadelphia.

A smart young lady stepped into the drugstore and asked for a dose of castor oil.

The agreeable drug clerk engaged her in conversation a few minutes and then asked whether she would like to have a glass of soda.

Thinking that her charms had influenced his susceptible heart she replied:

"Yes, if you please."

"What flavor?"

"Vanilla, if you please."

A few more words and then the young lady asked: "Will you give me the castor oil now?"

"Why, you've just drunk it," replied the clerk.

"Good gracious!" she exclaimed, "it was for my sister Mary."

From the answer one frequently gets in the dispensary room there seems still to be many diseases both trivial and fatal that are as yet not classified nor noted in the text books.

"My father," replied one, "died of the effects of the liver caused by a kick."

Another poor patient's father succumbed to "dropsy and asmus."

A third patient came near yielding up the ghost to a severe attack of "digestion of the kidneys."

Sometimes, though, they seem to go off without adequate cause.

"What sickness did your mother and father die of?" was asked one, and the rather surprising reply was: "I don't know, doctor, but it was nothing serious."

I wonder whether the practice of law will ever be so conducted that a respectable man will not find the witness-box as uncomfortable a public position as was that of the pilloried malefactor in the olden time.

This reflection was inspired principally by reading accounts of the preliminary hearings in the late notorious San Francisco murder case. The pastor of the church, apparently without a shadow of reason, fell under the ban of suspicion, was hauled before the Court and subjected by a hostile lawyer to a cross-examination running back over his whole life. As if this were not enough the account added that "the Judge was very sarcastic with him." Just because a crime was committed in his church the clergyman must be baited in open Court, and with no redress or no means of retaliating on his tormentors.

And in this city, just a few weeks since, in a notable case, a number of most reputable men who were unfortunate enough to know something about the case were put in the witness-box and insulted most grossly time and again by the attorney for the other side. The Judge did not protect them, and in such a position it seems our inadequate law allows a man no chance to protect himself. After all the Courts, the Judges, the lawyers and all the paraphernalia and processes of law are nothing but the work of men's hands, and exist only through the sufferance of the people; then why should society allow methods to continue that may subject to insult at any moment some of its members?

Individually we are helpless before this creation of ours, and the whole relationship reminds me strongly of that existing between the savage and his fetich. First he fashions fetich out of wood or stone, and then falls down and worships it in fear and terror.

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CLINICAL INVESTIGATIONS WITH REGARD TO THE THERAPEUTIC PROPERTIES OF TANNIGEN.

From the Medical Clinic of Bonn.

Among the remedies with which physicians are accustomed to treat inflammatory affections astringents have played an important part since olden times. Among these the most extensive therapeutic application has been made of tannic acid, the long-known active principle of the nutgall, that morbid vegetable growth produced by the punctures of various species of cyneps.

Up to recent times considerable obscurity has prevailed regarding the manner and nature of the action of tannic acid upon the animal organism. Its anti-phlogistic power has in general been attributed to a local narrowing of the vessels, although no reasons were assigned for this condition. It was not until the middle of this century (1843) that the investigations of C. G. Mitscherlich threw some light upon this obscure subject. He demonstrated the highly important fact that albumen and gelatine are precipitated by tannic acid; but it was left to the more recent investigations of L. Lewin to afford satisfactory information with regard to its physiological action.

Tannic acid exerts its stringent effect in two different ways: first, directly through application to parts accessible to local treatment, and

secondly, indirectly, by way of the circulation.

In the first place, it is of interest to study the influence of tannic acid upon albuminous substances. In regard to this, Lewin found that the coagula produced by tannic acid could be readily redissolved, either in the presence of an excess of albumen or of alkaline carbonates. Pepsine and peptones are affected in the same manner as albumen. On the other hand, a quantity of hydrochloric acid corresponding to that normally present in the gastric juice is capable of redissolving the precipitates. Lewin therefore concluded "that the artificial digestion of albumen runs a normal course under the influence of tannic acid, that this substance produces neither an arrest in the formation of peptones, nor an alteration in those already formed, that the pepsine present is not precipitated, and that this condition is to be attributed to the existence of free hydrochloric acid."

As regards the action of tannic acid upon the animal structures, especially upon the mucuous membranes, which are chiefly concerned here, all these tend to become denser, tougher and more contracted. The cause of this is evidently to be sought in a diminution of the intercellular fluid and the resulting more marked cohesion of the tissue elements. Of course, the muscular coat of the vessel is affected in a similar manner, being subjected to a more or less marked process of tanning or contraction.

If a solution of tannic acid is injected into the circulation, the first effect observed is always a narrowing of the lumen of the vessels. This

contraction has escaped observation of several of the more recent authors, because they selected solutions which were not sufficiently weak. Permanent contraction of the vessels can be produced only by solutions of the strength of one-twentieth to one-quarter per cent.; stronger ones produce a transient momentary contraction, followed by the opposite condition; that is, vascular dilatation. As Lewin has demonstrated, the latter condition stands in direct relationship with blood stasis in the capillaries. This capillary stasis can be explained in a completely satisfactory manner on the ground of chemical changes produced in the blood under the influence of tannic acids, that is, a plugging up of the finest vascular ramifications with coagulated serum albumen, inasmuch as, according to other observations, tannic acid does not act as a nerve irritant, so that a dilatation of the vessels of paralytic character can be excluded. We have, therefore, to deal with a primary stenosis due to a constriction of the vascular walls and with a secondary dilatation. In the stage of contraction the diapedesis of white blood corpuscles, and consequently, inflammation and suppuration, cannot occur.

As regards the question of how tannic acid is absorbed in the stomach and intestines, Lewin was the first to afford a satisfactory explanation. As we learned above, tannic acid, by reason of the free hydrochloric acid, is rendered incapable of exerting any action whatever upon the peptones; the remaining albumens are changed into tannic albumenates and digested in this form, that is, the albumen is peptonized so as to be no longer coagulated by the dissolved tannic acid, but, on the contrary, the latter is readily taken up into the circulation, where, under the influence of the alkaline reaction it becomes an alkaline tannate. Its absorption in the intestinal canal takes place in an even simpler manner; the tannin albuminate is dissolved by the alkalies in the intestinal juices, and the tannic acid enters the circulation in form of an alkaline tannate, and in the tissues,

under the influence of free acids, which counteract the alkaline reaction, again regains its activity.

An interesting phenomenon which attends the internal administration of tannic acid is the decrease in the quantity of urine observed after larger doses, in connection with an increase of the quantity of uric acid and a decrease of the quantity of urea. After very large doses the degree of concentration approaches that of the urine in fevers, and there are developed the symptoms belonging to uric cachexia, which manifest themselves in consequence of diminution of organic oxidation in the form of a considerable reduction of the secretion, dyspepsia, feeble pulse and heart action, and ultimately, atrophy.

By means of further experiments Lewin finally demonstrated that tannic acid can be detected in the urine after its external application to the mucous membranes; in fact, its entrance into the circulatory current can be followed through the entire thickness of the cutis.

Any remedy which is capable of exerting so diverse effects upon the organism must necessarily have found extended application at an early period; in the first place, as a hemostatic. It proved capable of producing occlusion of spurting vessels, even of the size of the crural, and although it lacks the energetic action of the chloride of iron, it is devoid, on the other hand, of the injurious caustic action of this substance.

It has also been employed with advantage in chronic moist eruptions of the skin, in the epheles, in cases of naevi and erysipelas. Homolle states that he was frequently able to entirely remove the scars of variola by application of a solution of tannic acid (1.0 gm. to 20.0 gm. tincture of benzoin), and in cases of gangrenous bed-sores solution of tannin have proved very effective. It is also very serviceable in the treatment of fissures of the nipple, and as a preventive in the treatment of frost bites.

By far the most extensive therapeutic application made of tannic acid has been in the inflammatory af-

fections of the mucous membranes, as in catarrhal conditions of the conjunctiva, in otitis and ozena; in the latter especially as a deodorant. Tannic acid has also proved serviceable in hypertrophy of the tonsils, and Loiseau has obtained excellent results from insufflations of tannin in diphtheria. Trousseau recommends tannic acid in edema of the glottis.

Furthermore, it has been found efficacious in chronic urethritis, and in catarrhal states of the female genital apparatus. According to Woillez, tannic acid diminishes the troublesome expectoration in cases of bronchitis attended with hypersecretion. Duboue states that he has effected a cure by treatment with tannic acid in two cases of pyothorax with pleuro-bronchitic fistulae. All these authors emphasize, besides its astringent power, its antiputrid and antibacterial properties. In fact, Lewin removed the putrid odor of decomposing blood solutions by addition of tannin, and was able to preserve them for a long time in open vessels without decomposition. Tannic acid has been recommended as an antipyretic from various sources. Barbier observed that workmen engaged in occupations in which tannin is used were not attacked by malaria, and Chansarel was able to abort malarial attacks by doses ranging from 0.6 to 2.0 gm., as well as by quinine. Pritsch employed tannic acid in cases of chronic enlargement of the spleen after intermittent fever with good success. As was also observed by Lewin, Honnig noted after injection of 0.5 gm. tannic acid into the jugular of a cat a diminution of the longitudinal diameter of the spleen already at the end of five minutes.

While, however, the curative influence of tannic acid is strikingly exhibited when employed externally, its internal administration is found to be attended with considerable disadvantages in consequence of its pronounced after-effects. Although small quantities of tannin exert a decidedly favorable effect upon the nutrition, very disagreeable phenomena follow its employment in

larger doses. On the other hand, tannic acid, on account of its tonic, stimulating properties in minimum doses, such as are present in red wine and tea, manifests an undoubtedly beneficial influence, especially in conditions of anemia and marasmus; but its administration is much less effective in those very cases where its astringent and antifermentative power appears so very desirable, i. e., in the treatment of catarrhal affections of the intestinal canal.

As we learned above, tannic acid produces precipitates in the stomach, to redissolve which it requires an excess of albumen, a presupposition which does not usually exist, at least, with large doses of tannin. If solution does not occur, the gastric mucous membrane of the stomach is subjected to a caustic action which manifests itself in loss of appetite, pain in the stomach and even nausea and vomiting—disturbances which, to a great extent, neutralize the desired effect upon the intestinal mucous membrane. To this must be added the disagreeable taste of tannic acid, the difficulty in swallowing which it occasions, and the temporary loss of the sense of taste. In consequence of these after-effects the internal administration of tannic acid has been more and more discarded.

For this reason the preparation of a combination of tannin which would be devoid of these troublesome after-effects could not but be of far-reaching significance. Professor Meyer, of Marburg, succeeded in producing an acetic acid ester of tannin, which seems to meet all the requirements. The new remedy, in which two molecules each of three hydroxyl groups are replaced by one of acetyl, and which has been named Tannigen, appears in the form of a yellowish slightly hygroscopic powder, tasteless and odorless, readily soluble in alkaline solutions and insoluble in water and diluted acids.

According to Meyer (*Deutsche Medicinischen Wochenschrift*, Aug. 2, 1894) experiments on animals show that Tannigen produces no disturbances of any kind in the stomach,

such as loss of appetite, and is well tolerated in quantities of several grammes, but in the intestinal canal diminishes the secretion and renders the feces more solid. The powder, therefore, passes through the stomach without occasioning the least disorder, and in the intestines, in consequence the alkaline reaction is split up into tannic acid and acetate of potash. Meyer was able to detect Tannigen in the feces of a cat, even after the small dose of 0.3 gm., which argues greatly in favor of its distribution over the entire intestinal canal, and of its gradual action. Although a certain amount of caution is demanded in the administration of pure tannic acid (Cavarra by a dose of 1.5 gm. distributed over three days produced in a dog so marked constipation as to require the administration of croton oil after a week), this is not at all necessary in the employment of Tannigen.

Experiments made by Professor Muller in the Medical Polyclinic of Marburg confirm the observations previously made on animals. He found that the powder was always willingly taken by patients, even for weeks, without any disturbance whatever. According to Muller, it seems especially indicated in chronic intestinal catarrhs, in which improvement was noted usually within a short time from doses of 0.2 to 0.5 gm. thrice daily, while in doses of 3.0 to 4.0 gm. it was well tolerated.

It would seem, therefore, that tannic acid has been prepared in a form in which it is possible for it to manifest its beneficial properties without the above-mentioned after-effects, and to exert its astringent and antizymotic power in a locality hitherto inaccessible to its influence.

As it seemed desirable to submit the new remedy to a more extensive trial, I experimented with it during last fall in the medical clinic of this city. Of course, as might be expected, the chief material was furnished by the pediatric polyclinic.

It can be readily understood that Tannigen will prove serviceable only in chronic catarrhal conditions, inasmuch as acute cases are so frequently cured with remarkable rapidity

simply by regulation of diet. Notwithstanding this, it may prove a useful therapeutic auxiliary even in acute affections in children, since it is also essential here to diminish the frequent discharges.

Before reviewing the cases of enteritis treated with Tannigen, attention must be called to the want of accuracy which is inseparable from investigations undertaken in dispensary practice. In many cases it is difficult to determine the effect, because the patients fail to return, and it would scarcely be right to conclude from their absence that they have been cured, however probable this may appear. Furthermore, our data are quite often derived second hand, and these statements are frequently of doubtful value. Again, the physician's directions are often not thoroughly carried out, or even disregarded, especially the prescriptions with regard to diet. It was found by us that Tannigen was badly tolerated by some children, and sometimes even caused vomiting if administered in milk; and hence the powder should be given in oatmeal gruel or boiled water. In cases where these directions were followed the favorable effect rapidly ensued, while in other cases it failed to occur, and here quite frequently the want of success was due to an improper manner of administration, that is, its administration in milk.

The results obtained from Tannigen in my clinical investigations are briefly as follows:

Case 1. Anna S., aged 3 months; suffering from marasmus. Since three days profuse greenish watery diarrhea; attacks of colic, during which child cries and draws up legs; vomiting of cheesy milk. Hereditary syphilis suspected. Treatment. Naphthaline 0.03 gm., without much effect; then Tannigen 0.1 gm. three times daily. After three days' administration, restoration of normal stools and appetite.

Case 2. Christine A., aged 11 years; chronic enteritis, anemia. Tannigen 0.25 gm., four times daily. Patient fails to return, but when visited six days later was found in a normal condition.

Case 3. Wilhelm H., aged 7 months; had suffered for several days from thin, greenish diarrheal evacuations, having an intensely disagreeable odor; no appetite, enteritis. Tannigen 0.1 gm. three times daily. After two days complete cure obtained.

Case 4. Johann A., aged 11 months; enteritis since two days, no vomiting, rickets. Tannigen 0.1 gm., three times daily. Cured in five days.

Case 5. Christine D., aged 13 1-2 months. Since eight days frequent diarrheal, no vomiting, rickets, enteritis. Tannigen 0.1 gm., three times daily. Cured in five days.

Case 6. Cecile J., aged 7 months; enteritis chronica. Since three weeks frequent attacks of dysentery. Had been treated for a long time without success with naphthaline. Tannigen, 0.1 gm., was now given, and even as early as a lapse of three days a striking improvement was noted, with a complete cure at the end of ten days.

Case 7. Peter S., aged 6 months; bottle-fed. Chronic enteritis present for several weeks. Tannigen 0.2 gm., three times daily. As early as the following day considerable improvement. After a few days more perfect recovery.

Case 8. Paul S., aged 6 years; chronic enteritis. Tannigen 0.2 gm. three times daily. Stools normal at the end of eight days.

Case 9. Rosa P., aged 22 months, had suffered for several days from severe diarrheal; enteritis. Tannigen 0.2 gm. three times daily. Patient fails to return, but when visited is found in a healthy condition.

Case 10. Eva D., aged 11 months; gastro-enteritis chronica, considerable atrophy. During several days naphthaline without success; then Tannigen 0.1 gm. After about 14 days considerable improvement was observed.

Case 11. Carl H., aged 2 months; enteritis. Since several days green, slimy, diarrheal stools; pertussis. Tannigen, 0.1 gm. three times daily. Patient fails to return, but when visited after a few days is found in a normal state.

Case 12. Joseph K., aged 6 months;

gastro-enteritis present since eight days. Tannigen 0.1 gm., four times daily. As early as the following day vomiting had ceased; stools became normal during next few days.

Case 13. Christine B., aged 11 months; gastro-enteritis chronica. Unsuccessfully treated for two weeks with naphthaline and bismuth. Tannigen, 0.1 gm., effected a complete cure in four days; according to statement of the mother, the stools became more consistent, even after the first powder.

Case 14. Louise H., aged 11 months; since five days severe enteritis, slight vomiting. For the first four days naphthaline was given, and then Tannigen, 0.1 gm., which brought about a cure in the course of a week.

Case 15. Marg. S., aged 3 months, chronic gastro-enteritis. Tannigen, 0.1 gm., produced improvement after three days, but treatment had to be interrupted on account of the occurrence of a sero-fibrinous peritonitis.

Case 16. Elise D., aged 6 months; chronic gastro-enteritis; atrophy. Had been unsuccessfully treated with naphthaline, bismuth, calomel and thymol. Tannigen, 0.1 gm., brought about normal stools in the course of about 14 days.

Case 17. Joseph H., aged 11 weeks, chronic gastro-enteritis, rickets. Tannigen, 0.1 gm., four times daily. On tenth day stools had become regular.

Case 18. Anna A., aged 8 weeks; chronic gastro-enteritis, rickets. At first treatment with naphthaline without success. Tannigen, 0.1 gm., produced improvement in course of a few days.

Case 19. Eugene E., aged 3 months; chronic gastro-enteritis. Tannigen, 0.1 gm., four times daily. After five days improvement.

Case 20. Caroline G., aged 3 1-2 months; chronic gastro-enteritis. First treated with naphthaline and bismuth without notable success. Tannigen, 0.2 gm., now administered, and in the course of four days stools became normal.

Case 21. Catharine A., aged 3 months; chronic gastro-enteritis.

Calomel was tried without success, after which Tannigen, 0.2 gm., four times daily was resorted to. At the end of two days stools of normal character.

Case 22. Eleonore G., aged 2 months; chronic enteritis. Tannigen, 0.2 gm., three times daily, followed by improvement at end of two days.

Case 23. Helene W., aged 1 1-2 years; gastro-enteritis. Tannigen, 0.2 gm., three times daily. Recovery in the course of a few days.

Case 24. Philip R., aged 3 months; fatty diarrhea. Calomel first tried, and then Tannigen, 0.1 gm., three times daily. Improvement.

Case 25. Sibilla S., aged 5 1-2 years; enteritis since a few days, anemia. Tannigen, 1.0 gm., three times daily. Recovery at end of two days.

Case 26. Fritz W., aged 6 weeks; bottle-fed; gastro-enteritis. After doses of 0.1 gm. Tannigen four times daily, considerable improvement occurred in the course of two days.

Case 27. Helene K., aged 9 1-2 years; chronic enteritis, chlorosis. Tannigen, 0.3 gm., three times daily. After ten days normal condition of intestinal canal.

Case 28. Catharine W., aged 11 months; chronic enteritis; rickets. Tannigen 0.1 gm. four times daily. After six days considerable improvement.

Case 29. Franz H., aged 8 weeks; chronic gastro-enteritis. Previously treated with naphthaline without visible success. Tannigen, 0.1 gm., four times daily. Recovery after four days.

Case 30. Cecile M., aged 8 months; chronic gastro-enteritis of several months' duration, rickets. Unsuccessfully treated with naphthaline and bismuth. Tannigen, 0.1 gm., four times daily. Stools normal at end of four days.

Case 31. August K., aged 8 weeks; chronic gastro-enteritis, rickets. Tannigen, 0.1 gm., three times daily. At end of ten days enteritis had completely subsided; stools normal.

Case 32. Johann W., aged 7 months; chronic gastro-enteritis. Naphthaline, bismuth and calomel effected only slight improvement. Tannigen, 0.1 gm., four times daily

administered, and after four days stools had become perfectly normal.

Case 33. Mathilde M., aged 7 years; attacks of diarrhea; hereditary tuberculosis; anemia. Tannigen, 1.0 gm., produced improvement of her condition.

Case 34. Josephine O., aged 1 year; chronic enteritis, rickets. Naphthaline and bismuth proved ineffective. Tannigen, 0.2 gm., effected considerable improvement within three days.

Case 35. Joseph L., aged 15 years; admitted to clinic with severe enteritis. Tannigen, 0.15 gm., three times daily. At end of one week discharged cured.

Case 36. Eberhard A., aged 32 years; admitted to clinic with acute enteritis. Tannigen, 0.15 gm., three times daily. Recovery in three days.

Case 37. Max Z., aged 19 years; admitted to clinic with chronic colitis. Tannigen, 0.15 gm., three times daily. Discharged cured at end of three weeks.

Case 38. Joseph D., aged 17 years; admitted to clinic with chronic enteritis and intestinal tuberculosis. Tannigen, 0.15 gm., three times daily, caused diminution of diarrhea. Discharged at his request.

Case 39. Heinrich H., aged 2 years, admitted to clinic with acute enteritis. Marked glandular swellings on neck. Tannigen, 0.5 gm., three times daily. Recovery at end of ten days.

Case 40. Gottfried F., aged 39 years; admitted to clinic with enteritis. Phthisis suspected. Tannigen, 0.5 gm. Discharged at request after 14 days.

Case 41. Johann K., aged 16 years; chronic enteritis of two years' duration. Phthisis suspected. Tannigen, 0.2 gm., three times daily, effected improvement within a short time.

The above cases sufficiently testify to the efficiency of Tannigen, especially in view of the fact that the majority were composed of dispensary cases, in which the conditions for a cure are not usually very favorable.

In the first stage of an enteritis it is advisable to combine Tannigen with a strong disinfectant (naph-

thaline or calomel) under some circumstances. At the same time it would also be desirable to continue the administration of Tannigen for some time after the disappearance of the catarrhal symptoms for the relief of any remaining intestinal irritation and for the prevention of sequelae.

In view of the favorable influences of this drug in cases of enteritis, we are warranted in concluding on theoretical grounds that the new remedy will also prove serviceable in other intestinal affections, especially cases of typhoid ulceration. It is also worthy of a trial in albuminuria, in which tannic acid has been frequently employed since its recommendation by Frerich.

A. Gues concludes his article on tannic acid in the *Nouveau Dictionnaire de Medicine et de Chirurgie Pratique*, of which I have made repeated use in the preparation of this paper, with the words that tannic acid may prove in the future one of our most precious therapeutic agents. On the ground of the observations made by me, it seems justifiable to maintain that this hope has been at least partially realized by the new combination of tannic acid known as Tannigen.

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Society Reports.

ANNUAL MEETING OF THE PENNSYLVANIA STATE MEDICAL SOCIETY.

The Pennsylvania State Medical Society met in Chambersburg, Pa., on May 21 to 24. It was called to order by President John B. Roberts.

Rev. Dr. J. Agnew Crawford made the invocation, after which Judge John Stewart welcomed the visitors and President Roberts replied briefly.

Dr. George S. Hull presented the programme. It was determined to make all physicians present members by invitation. Dr. Roberts read a portion of his report relating to the work of the society. He criticised the present method of work and suggested an amendment of the by-laws changing the rules. Dr. Atkinson made his report as secretary. Two societies—Bedford and Snyder—have been revived.

Dr. Dunmire, the treasurer, reported the receipts for the year \$5224.65, and the expenditures \$2904.37, leaving a balance of \$2320.28. Fifty counties of the State have paid their assessments. A warm discussion followed a report on "Contagious Ophthalmia," by Dr. Hansell, Philadelphia, but the report was adopted. John F. Patton, York, and J. H. Redsecker, Lebanon, from the State Pharmaceutical Society, were introduced, and Mr. Patton, chairman of the society, made an address and invited the physicians to send a delegation to Eagle's Mill on June 18. The secretary read the report of Dr. Weidman, of the Committee on the Rush monument. An addition of \$2000 made during the year has increased the fund to more than \$5000. Dr. LeMoyné, Pittsburg, read a resolution requesting chemists to omit directions for use from catalogues of medicines, and requesting the statement of ingredients of remedies. The resolution was adopted. An amendment was agreed to limiting debate on papers to five minutes for each speaker and the papers to ten minutes each.

The programme of the afternoon's

session was then carried out as follows: An address on "Medicine," I. C. Gable, York; "Sequellae of Typhoid Fever," T. D. Dunn, West Chester; "Treatment of Malignant Tumors by the Toxines of Erysipelas," John B. Roberts, Philadelphia; "Treatment of Typhoid Fever," James Tyson, Philadelphia; "Prophylaxis of Pelvic Inflammation in Women," J. M. Baldy, Philadelphia; "Tuberculosis," John M. Batten, Pittsburg; "Treatment of Fistula in Ano, by Langes Method, or Immediate Suture of the Tract," L. H. Adler, Jr., Philadelphia; "Ocular Affections Associated With Lithemia," Samuel D. Risley, Philadelphia; "Experience in the Treatment of Diphtheria During Thirty-four Years of Practice," William S. Stewart, Philadelphia; "Acute and Chronic Cystitis," J. W. Roop, Harrisburg; "Treatment of Nevus," H. R. Wharton, Philadelphia; "Report of One Hundred and Twenty-five Cases of Hernia in Which Radical Cure Was Performed," Ernest Laplace, Philadelphia; "Ten Minutes in Medical Electricity," George S. Hull, Chambersburg; "Present Status of the Sanitary Movement for the Adoption of the Individual Communion Cup," H. S. Anders, Philadelphia.

The discussions following the papers were spirited and in some cases very general.

The night session was notable because of the paper of Dr. Benjamin Lee, of Philadelphia, on vital statistics, which was freely discussed, and a resolution was passed indorsing it and urging the Legislature to pass the bill providing an appropriation. A fine essay was read by a Carlisle woman physician, Hildegard H. Longstdorf, upon hygiene, and an illustrated lecture was given by Dr. Thomas S. Cullen, of Johns Hopkins, Baltimore, on "Carcinoma of the Uterus."

SECOND DAY.

The clearing weather brought a large influx of physicians and the attendance was over 300. The report of attendance is over 300. The report of the Nominating Committee was adopted, and these officers were

elected: President, W. S. Foster, Pittsburg; vice presidents, John Montgomery, Chambersburg; A. P. Hull, Lycoming; F. H. Sharpnack, Greene; A. B. Brumbaugh, Huntingdon; secretary, W. B. Atkinson, Philadelphia; assistant secretary, A. L. Stevens, Bradford; treasurer, G. B. Dunmire, Philadelphia; Board of Trustees and Judicial Council, D. W. Bland, Schuylkill; T. P. Simpson, Beaver, and Henry Beattes, Jr., Philadelphia.

The reading of papers included these: "Deaf Mutes—Can Anything Be Accomplished by Treatment?" Louis J. Lautenbach, Philadelphia; "Microbes," William T. W. Dickson, Media; "Fat in Pulmonary Consumption," Thomas J. Mays; "Ligation of Arteries in Treatment of Malignant Disease," John H. Packard; "Case of Pyelitis in a Boy of 7 Years," J. P. Crozer Griffith, and "Empyema of the Mastoid and Its Relation to Acute Aural Disease," S. MacCuen Smith, all of Philadelphia.

At night the delegates and visitors were given a reception at Wilson College. An address of welcome was made by Rev. Dr. S. A. Martin, music was given by the glee club and the orchestra, and Dr. John B. Roberts, the retiring president, made his annual address on the "Present Attitude of Physicians and Modern Medicine Towards Homeopathy."

DR. J. B. ROBERTS' ADDRESS.

Dr. Roberts presented, in a semi-popular manner, the differences between modern or rational medicine and homeopathy, quoting the definitions given by standard dictionaries.

Homeopathy, as advocated by Hahnemann, he described as a school of medicine, while non-sectarian medicine was designated as a science, since it is in no way founded upon a theory or hypothesis, but is the result of investigation of chemical, physiological and physical facts. He gave reasons which prevent the physicians who subscribe to no dogma accepting the doctrines of Hahnemann, and made the statement that many physicians who are called homeopaths are not believers in all of Hahnemann's theories. Long

quotations were made from Hahnemann's "Organon" and recent homeopathic writers, tending to show that there are still some homeopathic physicians who believe in the increase of drug power by diminishing the dose, and in the efficacy, as a means of treatment, of the so-called universal and infallible law of "similars."

The attitude of physicians who accept no sectarian name, he said, was a dual one. Some of them hold that homeopathsists who do not believe in the universality of Hahnemann's law should make a public, formal statement before being admitted to the right of consultation with members of the non-sectarian medical organizations. Others believe that the profession and the public would be benefited if a graduate of a homeopathic college, or a member of a homeopathic society, who simply indicates his willingness to treat patients by all means should be admitted to the rights of consultation.

The author did not indicate to which of these classes he belonged. The paper was not written in a controversial spirit, but seemed to indicate that the author desired to permit the hearer to draw his own conclusions as to the relative merits of the case.

After the address a collation was served in the dining room. Harrisburg was selected as the place for meeting in May, 1896.

THIRD DAY.

This morning the attendance upon the State Medical Society reached the mark of 350, with charming weather for the visitors. The list of papers read to-day includes these by Philadelphians: "Address in Mental Disorders," F. X. Dercum; "Diagnosis of Gastric Lesion, by Modern Methods," S. Solis Cohen; "Report of a Series of Cases of Laryngeal Diphtheria Treated by Antitoxin, With and Without Intubation," Edwin Rosenthal; "Another Word on Adenoid Growths of the Pharynx," Harrison Allen; "Contribution to the Study of Deaf Mutism," Arthur Ames Bliss; "Report on Hydrophobia," Charles W. Dulles; "Irregular Forms of Enteric Fever," J. C. Wil-

son; "Bacteriological Examinations in Medicine or Surgery," Joseph McFarland; "Diagnosis and Treatment of Acute Intestinal Obstruction," James M. Barton; "Antero Fixation of the Uterus," George Erety Shoemaker. Dr. Benjamin Lee presented an unusual paper on the "Little Known Solar Plexus, or the Emotional Brain," a system of ganglia back of the stomach, and introduced it by referring to Little Billee's idea of his ailment in "Trilby." Antitoxin was much discussed and favored by nearly all speakers. Dr. Kate D. Miesse, Easton, had a worthy paper on "Nerve Muscle Atony in Girls." Owing to lack of time some papers were read only by title, and the list was completed this afternoon.

At 5 o'clock a special train took the society and friends on a complimentary excursion over the Cumberland Valley Railroad to the Soldiers' Orphans' Industrial School, at Scotland, five miles from here. After inspecting the school, which opens on June 1, the train went to Mont Alto Park, where the County Society tendered a banquet to the State body.

At Mont Alto Park 460 sat down to a fine feast. President John B. Roberts was toastmaster, and addresses were made in response to toasts as follows: "Politics," Congressmen Thad. M. Mahon; "The Bar," Hon. W. Rush Gillan, O. C. Bowers, Esq., all of Chambersburg; the society's president-elect, Dr. W. S. Foster, Pittsburg; "The Country Doctor," Dr. S. S. Towler, Marionville. The park was lighted by electricity and an orchestra furnished music for dancing. The special train returned to town at 11 P. M.

FOURTH DAY.

At 8 A. M. President Roberts called the last session of the State Medical Society meeting to order. A vote of thanks was extended to the Franklin County Society, to Wilson College and the town. Dr. Roberts spoke in terms of warm praise of the entertainment furnished.

Dr. J. C. Gable, York, offered a resolution that the State Board of Health inspect the sanitary condi-

tion of all plants in the State producing vaccine virus, which was adopted. Dr. Benjamin Lee, Philadelphia, offered a resolution, which was adopted, asking that the National Government establish a Department of Health at Washington.

President Roberts then introduced President-elect W. S. Foster, who was escorted to the chair by Drs. Williams and Cochran and made a brief inaugural address and the meeting adjourned.

At 9 A. M. a special train took over 300 of the visitors and their friends over the W. M. R. R. to the Blue Mountains. A stop of an hour was made at Pen Mar and Blue Mountain House and then the train went on to Gettysburg, where the battlefield was inspected. The party returned by various trains to Chambersburg and the visitors scattered to their homes.

Book Reviews.

KOLA ILLUSTRATED.

Monograph, 28 pp., Johnson & Johnson, New York, Publishers. Lotus Press Print.

A handsome brochure containing a score of illustrations, one colored plate to give a full and entertaining description of West India Kola, also the physiological action of Kola, comparative action of Caffein, Kola and Kolanin; reports of action of Kola in aiding muscular effort, marching of troops, bicycle riding, mountain climbing, athletic training.

The publishers' preface says:

"The interest shown by the medical profession in our studies of Kola has exhausted two very large editions of our monograph, 'Kola Illustrated.' This brochure (the third issued by us), has been prepared especially for the busy physician.

The following is a synopsis of the contents:

Botanical characteristics.

Kola of the market. Reports from

Africa and the West Indies on the methods of gathering for export.

Special report on the Bissy Nut, the Kola of the West Indies.

Chemical constituents of Kola.

Physiological action of Kola.

Reports of the action of Kola in aiding muscular effort.

In the marching of troops.

Bicycle riding.

Mountain climbing, etc.

Therapeutic uses of Kola.

Medicinal and beverage preparations of Kola.

Kolafrä in athletic training.

Our readers can obtain a copy by writing Johnson & Johnson, New Brunswick, New Jersey.

URINARY SURGERY.

By H. Fenwick, F. R. C. S. E. Published by Wright & Co., Bristol, England, 1894.

This volume forms one of the numbers of the "Epitomes of Modern Surgical Progress," published by the above firm. As the author says in his preface, it is a resume of the recent literature on the subject, drawn from various sources. There are chapters on the technique of operations, movable kidney, calculus and renal humors. The surgery of the ureters and bladder claims several pages. Electric cystoscopy is fully explained, and the advantages of the method pointed out. The diseases of the prostate are thoroughly gone into, and the book concludes with chapters on stricture and its operative treatment, urethritis and the differential diagnosis of diseases of the urethra by means of the urethroscope. In connection with this, the fact that the gonococcus may remain latent for year is alluded to. The chapters are brief, but filled with information that cannot fail to be appreciated especially by those having to do with the surgery of the genito-urinary organs. The author's reputation is a sufficient proof that the book is not only up to date, but that the information contained in it is reliable.

E. W. B.

The Times and Register.

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THE TRANSITIONAL STAGE OF ANTISEPTICS.

Perhaps, in the whole history of medical science since the days of Galen to our own time, there never has been a new theory promulgated which was seized on with greater avidity and more generally accepted by the medical profession than the antiseptic.

The few who stood out against it were dubbed "old fogies, were behind the times and were dangerous characters."

In fact they were nearly ostracized by the scientific societies; and, we were told by the late Morrell McKenzie, that he narrowly escaped arrest while in attendance on the unfortunate Crown Prince because, forsooth, he failed to scour and saturate his tongue depressor before using it.

Pathologists, in labored and exhaustive treatises, went on to differentiate the various germs that defied the chemical solutions, and clinicians would have us believe that the ubiquitous germ was the sole factor of all the ills of man. Bacteriological laboratories sprung up everywhere, and hereafter we were to treat the germ and not the disease.

Time, however, which is a great leveler, soon demonstrated that, however fascinating biological studies may be, there is something more in operation, in deranged physiological processes than microbes. We notice in the operating room that the irrigating torrent has gone, the multiple tubular drainage, which looked like so many spines protruding through the tissues has followed suit; common sense and rational methods have once more regained their supremacy.

It has been repeatedly demonstrated that those potent irritating solutions are not only not innocuous, but often capable of doing much harm. Their general employment has been condemned, and now, as we wind our way around the cycle, we find "asepsis" in the foreground.

The antiseptics, so-called, have a place, and one important one in the domain of surgical therapy; in all cases of lesions in which we are assured, there are contaminated, or infected elements, but in none others.

The great error has been inculcated in our rush for germicides; viz., that we have been led to overlook the general state of our patient, the condition of the secretory organs, digestion and the general environment.

Without attention to these, which are the very foundation on which everything else rests, all our best efforts are futile.

Let us not overlook, then, when we are about to undertake a serious operation, the condition of our patient's circulation, the state of the organs, the physical and chemical qualities of the urine, the psychological tendencies, and, above all others, the provisions for appropriate post-operative treatment.

CREDIT WHERE CREDIT IS DUE.

It is amusing to note, especially among some of our English contemporaries, the indisposition to give due credit where articles are abstracted from medical journals. If we have fallen into this error ourselves it has been done unwittingly. We have often noted extracts taken from the "Times and Register" reported with an unceremonious Ex. at the end of it or without any credit at all.

Recently we were led into reproducing a short article twice which originally appeared as a direct translation from a French journal in the "Times and Register." The editor of the London Medical Times copied it, referring to us as "An American contemporary." He criticised the term "spleno-pneumonia" as "a disease which we hear of for the first time." (See "Times and Register" May 18, page 413.)

If our English friends would invest in a few American medical dictionaries, such as Billings', they would find the term "spleno-pneumonia, F." and defined as "congestion and infiltration of the lower lobe of the lung, on left side especially, simulating pleural effusion."

One of our American exchanges generously copied a book review lately, without the semblance of any credit to us for the labor involved to produce the same. We can, however, forgive him, as we know that time is always precious here in America, and a book review would look queer as an extract from another journal.

Advertisers, who do not advertise with us, often find out the worth of our medicine only when something arises which is slightly adverse to their preparations. By the way their criticisms come in to us, one would suppose they thought the "Times and Register" was the only medical journal in America, and its influence extended to the ends of the earth; yet when it comes to soliciting advertising on account of our valuable medium these very persons are the ones to refuse.

We do not ask for more than our just dues, and it is not our policy to blow our own horn too loudly, but

we do strive to present our readers with a clean, newsy medical weekly at a very low price, and think our esteemed contemporaries should be considerate enough not to purloin our goods without the credit of a reference.

THE GOLD "CURE" FOR DRUNK-ENNESS.

A telegram from Leavenworth, Kan., says: Judge Myers, of the District Court, has made an important order affecting the rights of Dr. Leslie E. Keeley. W. F. Johnson, of Topeka, sues Dr. Keeley for \$100,000 damages, the petition reciting that the plaintiff had been made a physical wreck because of the gold cure. Judge Myers, in granting the petitioner's request, rules that Dr. Keeley must make known the ingredients of his so-called bichloride of gold compound.

EUROPHEN AS A TOPICAL REMEDY.

In a Handbook of Local Therapeutics, edited by Dr. Harrison Allen, Dr. Arthur Van Harlingen writes as follows with regard to the therapeutics of this iodine derivative: "Europhen is protectorant and alterant. It possesses many of the properties of iodine, while free from odor and poisonous properties. Europhen can be used in the proportion of three parts of the powder to seven of olive oil as an excipient dressing for burns. As a substitute for iodoform it has been used as an application to ulcers, particularly venereal and syphilitic lesions, condylomata, scrofuloderma, lupus and dermatitis calorea, with success. Europhen seems to have a peculiarly destructive effect upon the staphylococcus pyogenes aureus. Used by insufflation it is recommended in nasal catarrh in children. It appears to be useful in reducing the hypersecretion following surgical procedures within the nasal chambers. According to Loewenstein it has value in epistaxis due to erosion of the nasal septum. S. Johnston recommends the drug as an insufflation to the surfaces of syphilitic ulcers of the nasal passages." In his Manual of Therapeutics Dr.

A. A. Stevens says: "Euophen closely resembles iodoform in its action, and, like the latter, liberates free iodine in the presence of heat and moisture. As it is lighter in weight than iodoform a given quantity will cover a much larger surface than a similar amount of the older antiseptics. It possesses advantages over iodoform in being free from odor and less toxic. Euophen may be used in the same class of cases as the latter, and may be employed in powder or an ointment containing five to ten per cent. of the drug."

Correspondence.

Editor of the "Times and Register:" My attention has been called to a paragraph in your issue of May 11 (see page iv.), which in general misrepresents the case and contains some specific misstatements.

First, the library subscribed for the Medical Record in April and would have done so sooner had the representatives of the medical societies requested it. The back volumes of the Record were also ordered. The library buys only such medical books and periodicals as are recommended by the medical societies.

Second, the great majority of the books are catalogued and all are arranged in an orderly manner on the shelves, to which physicians and students have ready access. That they have not all been catalogued is due to the fact that during the past year an average of over 1000 volumes a month have been added to the general collection, and these books being in daily and hourly demand have naturally taken precedence over books that are seldom called for. The whole library is being recatalogued, and the medical collection will receive attention in due time. The opening of the library free to the public has quadrupled our work, and cataloguing cannot be done by green hands.

Third, a list of the unbound periodicals was referred to the Library

Committee of the St. Louis Medical Society for its decision, and all those that the committee determined to be worth binding were at once sent to the bindery.

Trusting that you will allow this correction and explanation the same prominence that was given to the complaint and that the Medical Review will also publish it, I am,

Respectfully,

F. M. CRUNDEN,

St. Louis, May 25, 1895. Librarian.

The extract alluded to was taken from one of our exchanges and we are glad to correct any errors that were contained therein.—Ed. "T and R."

New York, May 8, 1895.

The Oakland Chemical Co.,

New York City.

Dear Sirs:—We have procured your medicinal Hydrogen Dioxide from three different firms, selected by ourselves, in this city, and have analyzed the samples thus obtained for percentage of Peroxide of Hydrogen, acidity, saline residue and soluble Baryta salts.

The amount of Peroxide of Hydrogen in your solution, which, according to your claim should be 3 per cent., corresponding to about 10 volumes of available oxygen, was measured by permanganate of potash in the usual manner.

The acidity was determined by the use of 1-5 normal soda solution.

We could not detect any traces of Baryta, and, in fact, Baryta could not be present in soluble form on account of the presence of sulphuric acid or soluble sulphates in all these samples.

The results obtained were as follows:

100 cc of.....	Available Oxygen by Volume.....	Soda (Na OH) re- quired for neutral- izing the Acidity..	Saline residue.....
No. 1	12.60	0.054	0.0676
No. 2	11.61	0.050	0.0830
No. 3	12.43	0.056	0.0670

From these results it is evident

that your hydrogen dioxide for medicinal use possesses more than the full strength claimed by you and prescribed by the United States Pharmacopoeia.

Sample No. 2 is lowest in strength. From the appearance of the cork it is evident to us that it had been stored laying on its side, contrary to the instructions printed on your wrapper. If the peroxide is in constant contact with the cork the article will deteriorate quicker than if the bottle had been kept standing up, besides it adds to the saline residue, which, in this case, was slightly colored.

The acidity of your Hydrogen Dioxide keeps within safe limits.

In conclusion we herewith cheerfully attest that your medicinal Hydrogen Dioxide is in strength equal to all claimed by you, and that it does not contain anything injurious or prejudicial to its medicinal application.

From our experience with your Hydrogen Dioxide we can testify that it possesses good keeping qualities. Yours very truly,

ENDEMANN & SAARBACH.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

CASES OF CEREBRAL SURGERY.

At the last meeting of the Medical Society of Victoria ten cases of cerebral surgery were shown. The first was a patient, aged 30, under the care of Mr. G. A. Syme. When first seen in August, 1893, the symptoms were epileptiform, convulsions beginning in the right side of the face, spreading to the right arm and leg, and then becoming general. They were preceded by a sense of constriction in the throat and a numb feeling in the tongue and right side of the face. For some days after the attack the right side of the face and the tongue were paralyzed, and the speech thick. Vision, visual fields, and optic discs were normal. There was no vomiting, and no loss of sen-

sation. There was no personal or family history of tubercle, and no history or evidence of syphilis. It was concluded that there was some irritation of the cerebral cortex over the face and tongue centres, probably a tumor, and operation was advised, but not agreed to until October 22, 1894, when the patient had become much worse, suffering from aphasia and agraphia, paralysis of the right side of the face and tongue, and paresis of the right hand. The fits had become more frequent and more severe, and he had pain in the left parietal region. The skull was trephined over the face and tongue centre, and a tumor 2.3 by 1.9 inches in size and two ounces and a half in weight removed. It grew from the dura mater and pressed on the lower portion of the ascending frontal convolution and the posterior part of the second and third frontal convolutions. The tumor was encapsuled and microscopically was a small round-celled sarcoma. Speech and motion were gradually recovered, and when shown nearly four months after operation the paresis of the face and tongue was hardly noticeable, the speech was good, he could write perfectly, had no pain and had had no fits. There was no evidence of recurrence. The second case was under the care of Dr. W. Moore. The patient, aged 9, was suddenly seized with a convulsion, and became unconscious, with right hemiplegia. She had suffered from a discharge from the left ear for several years, which became worse, with earache and pain on the left side of the head ten days previously. The temperature was 102.6 degrees F. A diagnosis of temporo-sphenoidal abscess was made, and the skull trephined in the usual way. The brain was explored in several directions with a grooved director and a trocar and cannula, but no pus was found. After the operation the temperature became subnormal, and the pulse 60. The paralysis and aphasia remained. Five days afterwards the wound was reopened and the brain again explored, when pus to the extent of about two ounces was evacuated from the temporo-sphenoidal lobe. The abscess

was drained, and the patient gradually improved, regaining speech and power in the leg, but the arm remained weak, with some contraction of the fingers.

THE TREATMENT OF PLEURITIC EFFUSIONS.

When paracentesis thoracis by aspiration was first introduced, antiseptic surgery was unknown, and it is, therefore, no matter for surprise that a method which gave such brilliant results as compared with the methods then in vogue for the relief of recurrent effusions should have forthwith attained a considerable measure of popularity. Although from an antiseptic point of view aspiration constituted an immense improvement on alternative procedures, it was soon found that in the hands of careless surgeons the conversion of a simple serous into a purulent effusion not infrequently followed repeated paracentesis, and so it gradually came to pass that a rule was formulated—a rule which still maintains its ground in the current text books—in virtue whereof paracentesis was disadvised in the event of the effusion recurring after two or three aspirations. During the last few years, however, considerable advances have been made in this department of surgery, and it is now formally admitted that the conversion of a simple pleuritic effusion into an empyema is the fault of the operator. The fact that it has been found possible to empty the chest by means of the aspirator as many as thirty-seven times without inducing any such change may be taken as evidence that, with ordinary precautions, no risk of sepsis need be incurred. It follows as a logical sequence that it can never be justifiable to open the chest in such cases so long as the effusion preserves its serous character. At the last meeting of the Medical Society of London Dr. S. West related a case in which, after performing paracentesis thirty-seven times in a case of recurring pleuritic effusion, he felt compelled, by the inability of the patient's friends to incur the expense of any further prolongation of the treat-

ment in town, to consent, though with grave misgivings, to the chest being opened. The result fully justified his misgivings, for the patient, though she ultimately made a good recovery, passed through a very critical period, during which her life was in the balance. In criticising such a case one is tempted to remark that the reason assigned for consenting to an operation which was recognized to be fraught with the gravest risk to the patient was hardly one that would commend itself to the average reader. Paracentesis is such a simple operation that it is not easy to conceive of any valid reason why this method should not have been persisted in, even though it might have had to be performed by the country practitioner who originally had charge of the case. The fact remains that, although the patient survived the ordeal, the history of the case reinforces the moral that opening the chest under such circumstances is an utterly unjustifiable operation.—*Medical Times and Circular.*

CHLOROFORM DURING SLEEP.

The following case is of interest as bearing on the question whether a sleeping person can be chloroformed without awakening.

The reporter was asked to take two teeth out for a girl aged 7, and as she is very timid and excitable, to give her chloroform. On going to her home he found her lying on her back in bed sound asleep. Having poured about two drachms, probably more, of chloroform on a folded towel, he gradually brought it to about two or three inches from her mouth and held it there. She went on breathing quite quietly, and neither coughing nor making any unwonted movements. In a very short time she was so well under its influence that her hand fell down when raised and the conjunctiva was insensible to touch.

She was then lifted out of bed, carried into another room and laid on a sofa, without her giving any sign of consciousness. On opening her mouth, however, she put up her hands and turned her head on the pillow. More chloroform was given,

and almost immediately she was in a state of complete anaesthesia and the teeth were extracted. She was easily aroused, but almost momentarily fell asleep again, and slept for two hours. When she awoke she was much astonished to find her teeth were out.—Therapeutic Gazette.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

RATIONAL THERAPEUTICS OF CHOLERA INFANTUM.

BY GUSTAVUS BLECH, M. D., ST.
LOUIS.

No strict rules can be given for the treatment of disease. It is for this reason that so many physicians say we do not treat a disease, but we treat an individual. True enough, we treat the individual, but what we have most of all to consider is the disease. The individual will dictate us alterations and modifications in our treatment.

A general plan of treatment may be outlined, however, and I will try to do so in regard to one of the most fatal diseases of babyhood—cholera infantum. There is a certain philosophy in therapeutics which I would frame in the three following rules: First, remove if possible the disturbing causes; second, treat symptoms which per se are liable to endanger the life of the patient; and third, sustain vitality.

As said before, the therapeutics which is based upon the etiology and pathology of a given case is the only one to be employed.

Now, the etiology of cholera infantum is not so obscure as asserted by a good many authors. Whether or not of microbe origin, one thing is sure—it is due to a chemical decomposition of food, causing an inflammatory condition of the digestive and alimentary canal.

Clinical experience, furthermore, shows that this disease is of a grave character, producing death in a large proportion. Heat per se is not the immediate cause of this disease,

but it influences its course considerably. Therefore, gastric or intestinal disturbances in summer demand a closer attention than those which occur during the colder season. Cholera infantum is a disease met even in the palaces of the rich, although not so often as in the tenement houses of the poor, which fact proves again that bad air, filth and lack of ventilation are also of a predisposing influence, as well as an obstacle to a quick cure. The mortality in the tenement houses is larger than that of the richer parts.

If we consider the aforesaid, we shall first of all, as regards the treatment of this disease, have to restrict diet.

As soon as called to a case of cholera infantum, prohibit for the first day any food whatever. Mothers have no right to nurse the little patient either. Strict instructions must be given in that direction because the timid mothers are often inclined to quiet the crying babies by putting them to the breast.

Remedies are of very little value. Beginning with calomel, salol, and all the newer antiseptics, finishing with subnitrate of bismuth—they have all proved a failure, for none of them work quickly enough.

The treatment as outlined by Dr. Elmer Lee, of Chicago, in his cases of typhoid fever, proved a success in my hands during last summer, and under this treatment I have lost only one patient out of twenty-three, while the monuments of my skill exercised during the year 1893 are decorating the cemeteries of the State of Connecticut.

So far as I knew, the best antiseptic (which has also a strong tendency to reduce local inflammation) was peroxide of hydrogen (medicinal) until hydrozone was used by me. Hydrozone being twice as strong as Marchand's peroxide of hydrogen (for economical reasons), the latter drug is preferred by me. This remedy can be administered internally as well as externally.

I add a tablespoonful of hydrozone to a pint of water for washing out the stomach. The vomiting ceases after the first washing as a rule. If

necessary, this procedure can be repeated. If the vital power of the little patient is not too low it can produce no harm. But in every case, no matter how far advanced, I do not omit an irrigation of the bowels, for which purpose I use a soft rubber catheter attached to a common bulb syringe. The catheter is introduced as high in the colon as possible. It is unnecessary to say that the water must first be sterilized. I do not agree with Dr. Lee in using hot soap water. On the contrary, I use cold water, and add to each quart about two ounces of hydrozone. The improvement after the first or second irrigation is marked. If necessary, these irrigations can be repeated every two hours.

Among other remedies there are only two to be employed, morphine and strychnine. But ought to be administered hypodermically. Their indication is too well known and they are about all we need. No antipyretics should be given. If the fever is very high and if the irrigation of the bowels does not reduce it, the whole body should be washed with alcohol.

The diet for the next twenty-four hours should be very light indeed. Sweet strong Russian tea is all I allow.

Each individual case will teach us when food can be allowed again.

Since the adoption of this mode of treatment I have met with the most remarkable success, and no honest practitioner should refuse it a trial.—N. Y. Medical Journal, March, 1895.

COMPLETE BLINDNESS RESULTING FROM THE USE OF THE ETHERIAL EXTRACT OF MALE FERN.

Grosz communicated to the Medical Society of Budapesth the particulars of a case which occurred in his practice: The man, 29 years old, had previously some weakness of vision in the left eye, but the right eye was normal. Suffering from stomach disorder he took a dose of castor oil and then 32 capsules of extract of male fern, and pomegranate bark. The same day he began

to feel badly. The next day he lost consciousness; had diarrhea and on the next day was completely blind. The eyes showed enormously dilated pupils. The fundus was normal in both eyes, the blindness persisted, and atrophy of the optic nerves became more and more pronounced.

Formerly, when the dose of the extract of male fern did not exceed 3 to 5 grammes, Paulson reported thirteen cases of poisoning from it, three of which proved fatal. He considers the amorphous variety of fellic acid as toxic, while the crystalline variety is free from this action. It is especially dangerous to give at the same time extract of fern and castor oil, as the latter dissolves the toxic principle easily. The mydriasis and amaurosis are said by Kneas to be of peripheric origin and analogous to that produced by quinine or after hemorrhage.—Le Courrier Med.

Nitro-glycerin is recommended as a treatment in sciatica. It has proved successful after a fruitless trial of all usual treatments.—Annales de Med.

Nitrate of silver in tuberculosis has been found useful from its action on the digestive system.

TREATMENT OF LIVER SPOTS, EPHELIDES, ETC.

R Sublimat	.....30	grams
W. White Hellebore	.....10	grams
Water	.....300	grams
Lotion—Apply three or four times daily.		

ICTHYOSIS.

R Papain	.....8	grams
Salicylic	.....4	grams
Glycerine	.....
Castor oil	.....16	grams

PRURITUS.

R Carbolic Acid	.....4	grams
Potash Lye	.....4	grams
Linseed oil	.....30	grams
Essence of bergamot sufficient Lotion.		
—Ornstein.		

SERUM THERAPY IN DIPHTHERIA.

Professor Baginsky, of Germany, summarises his experiences with Dr. Aronson's antitoxin as follows: 1. It is a most active remedy and the best that has hitherto been employed against diphtheria. 2 It

works the better the quicker it is injected after the first symptoms of disease, being advantageously combined with a mild local antiseptic treatment. 3. It is not followed by any serious effects, the sequela observed being customary after diphtheria, and if more frequent at least less severe. 4. The uncertainty as to the mode of action of the antitoxin should not in the slightest influence its therapeutical employment after the activity of the remedy has been empirically determined.

Professor V. Widerhofer, of Vienna, also expressed himself as a warm advocate of the new treatment. Confining himself to generalities, he stated that of 300 cases of diphtheria treated with serum, from October to February last, in the first hundred 24 died, in the second hundred 30, and in the third hundred 17, corresponding to a rise and fall in the severity of the disease, and making an average mortality of 23.7 per cent. The larger proportion of deaths experienced in the Vienna hospital than in other quarters the speaker considered sufficiently explained by two reasons; in the first place owing to the scarcity of the remedy only the severer cases were injected with serum; secondly, a large proportion of the children so treated were brought in at a very advanced stage, more than half after the third day, so that, excluding those who died in the first 24 hours, the mortality fell to 14.3 per cent. In confirmation of this view he added that a number of the children were already in a state of laryngeal stenosis, yet in 22 cases the injection of serum overcame or avoided stenosis. With the exception of gargles in a few instances no further treatment was resorted to, but the speaker laid much emphasis on the treatment of cardiac weakness, strychnine injections being employed with most satisfactory results.

On the question of preventive inoculation, Professor V. Widerhofer expressed himself equally favorable. In 130 children prophylactic injections were made, most of them brothers or sisters of children brought to the hospital, and also about a score

in two hospital wards where diphtheria broke out. Only one child subsequently developed diphtheria, and the attack was slight. According to reports received from country sanitary authorities the results are, however, not so brilliant; of 188 cases immunised 19 being subsequently attacked, although the disease ran a favorable course.—London Therapist.

AN IMPORTANT CONTRIBUTION TO DIPHTHERIA ANTITOXINE LITERATURE.

One of the weightiest pieces of testimony in favor of the antitoxine treatment of diphtheria appeared in the last number of the *Archiv fur Kinderheilkunde*. It is an article by Dr. Adolf Baginsky and Dr. Otto Katz. Dr. Katz gives very full histories of 167 cases of diphtheria treated with the Aronson antitoxine. The authors say that at the outset they were very skeptical concerning the antitoxine treatment, but that when they had seen case after case of the gravest kind take a most favorable turn after it had been employed they came to the conclusion that it was time to reconsider. Their present impression is that, while the antitoxine is not a cure-all, it will exert the most favorable influence in the majority of the worst cases of diphtheria.—New York Medical Journal.

Miscellany.

FEMALE OR WOMAN.

Dr. Howard A. Kelly writes as follows to the editor of the *American Journal of Obstetrics*: "A good friend with a fine English sense, who occasionally looks over my shoulder as I write, left this note ('Female' or 'Woman?') pinned to one of my papers a few days ago. I think the fault common enough to be worth while correcting publicly. And as it is manifestly an error to which a gynecologist is more prone than other men, the correction ought to appear in the *American Journal of Obstetrics*: 'Take care not to use the word "female" as meaning a woman. It is

correct to speak of the female pelvic organs, but a "female" is not a woman; it is a cow, a mare, any animal of the female sex. It is old-fashioned English to call women females, and the expression is coarse in this sense."

THE QUININE TREE.

It has been discovered that the famous tree from the bark of which quinine is obtained furnishes no quinine except in malarial regions. If a tree is planted in a malarial district it will produce quinine; if it is planted in a non-malarial district it will not produce quinine. It is therefore claimed that quinine is a malarial poison, drawn from the soil and stored up by this wonderful tree.—*Lancet-Clinic*.

THE POULTICE AND BACTERIA.

The poultice has recently been examined bacteriologically by Dr. R. W. Lovell, and he happily finds that it is reasonably sterile and non-pathogenetic. It would be hard, indeed, if the soulless searchers after microbes were to lay the ban upon this most comforting and useful domestic remedy. How few mortals pass through this vale of tears without the occasional solace of hot pul-taceous flaxseed. As long as there are boils there will be poultices to solicit the streptococci into gentler activity.—*New York Medical Record*.

TONGUE TRACTION.

Laborde reports a new and striking case of the value of his method of lingual traction. A child born apparently dead was treated for 10 minutes by rhythmic traction of the tongue, with complete success. The doctor was then obliged to turn his attention to the mother. Returning to the child it was again apparently dead. All the usual methods of resuscitation were tried, without avail. Rhythmic traction of the tongue restored it in six minutes. Tarnier in commenting on the case considered the method more generally applicable than insufflation.—*Medical Record*, vol. xlvii.

A USEFUL THING TO KNOW.

To restore hardened rubber goods all that is necessary is to soak them in a mixture of one part of ammonia with two parts of water. This does not injure the rubber in any way, and restores the elasticity. Usually, soaking from ten minutes to half an hour is quite sufficient. After drying the whiteness may be restored by dusting well with chalk or kaolin.—*Canada Lancet*.

BIRTH OF CHILD WITHOUT RUPTURE OF MEMBRANES.

Forman (*Jour. de Med. de Paris*, April 7, 1895) observed this rare occurrence in the case of a woman aged 22, seven months advanced in her second pregnancy. She was suffering from pleuro-pneumonia, the temperature having risen to 106.6 degrees. A few minutes after cupping glasses had been applied to the bases of the lungs the patient felt a desire to defecate; this was followed by a single pain which expelled the entire ovum with a little blood. There was no further escape of blood. Forman arrived a few minutes later. He found between the patient's thighs a big cyst with transparent walls. The mother was free from all the evils which may follow precipitate delivery; the uterus contracted well. The wall of the cyst was then cut; about a pint of amniotic fluid escaped. A female child was seen; there was no pulsation of the cord, but after active measures the infant breathed well and took the breast. It weighed three pounds six ounces, and measured over 14 inches; the placenta weighed a little under a pound. The cord was very gelatinous and measured 18 1-2 inches in length. Judging from the position in which the ovum lay—outside the vulva—it seemed that the breech had presented, and that the placenta had been inserted very low down without being previa. The child lived only 16 hours, and the mother had a bad attack of empyema. Forman quotes a considerable number of cases of membranes unruptured at birth.

A LIBEL SUIT WON BY A YOUNG DOCTOR.

About two years ago some of the New York newspapers published fantastic accounts of certain unconventionalities alleged to have taken place in a Fifth Avenue boarding house in which two young doctors, Dr. Achilles E. Davis and Dr. B. F. Parrish, happened to have quarters. These young gentlemen were held up before the public as having been implicated in scandalous goings-on in the house, and certainly must have been injured materially in the estimation of those of their acquaintances who are accustomed to give credence to newspaper gossip. Dr. Davis brought a suit for libel against the Sun Printing and Publishing Association, and we are very glad to learn that the jury brought in a verdict for \$2500 in his favor. We are informed that this was but a test suit, and that the other offending newspapers will be sued by Dr. Davis and Dr. Parrish. By pursuing this course they are not only vindicating themselves but doing a public favor, and we hope they will meet with complete success in their suits.—New York Medical Journal.

BAREFOOT BABES.

Here in Boston are two physicians whose children go barefoot all the year round. The writer is one of these. My three children, 4 1-2, 3 1-4 and 1 1-2 years, have never been shod indoors, and they have been barefooted much in warm weather outdoors, and would never be seen with shoes and stockings on in summer and the warm weather of fall and spring but for the ignorant prejudice of those about us.

We are aware of being severely blamed for our "cruelty," but the children delight in their freedom from boots and stockings, and cannot get them off soon enough on entering the house. Our eldest, a girl, goes to kindergarten, and is the only one out of about 50 pupils who is barefooted. The head teacher is a very bright and gracious woman, who has managed to prevent pupils and visitors from making the little barefoot girl uncomfortable by un-

favorable remarks. None of our children has had any sign of throat troubles, and I believe the experiences of the other physician mentioned—a leading regular—has been equally satisfactory as regards the condition of his three children.—Health Culture.

By indicting a faith curist who is said to be responsible for the death of one or more persons, the Mt. Holly Grand Jury has taken a step in the right direction. It is time something should be done to discourage a practice which has resulted in the loss of many lives. Faith curists should at least be compelled to confine their experiments to themselves.

"The meanest man I know of lives in Kansas," said a St. Louis physician. "He is a farmer, worth a cool hundred thousand. His wife was taken suddenly ill, and he came to town to consult me about her case. I told him that I could not prescribe intelligently without seeing the patient, but he declined to incur the expense of a visit. I charged him \$1 for the prescription, and he spent half an hour trying to beat me down to 90 cents. He made me write the prescription in English, then bought the drugs and compounded it himself to save the apothecary's fee. One of the ingredients was capsicum. He thought he had some at home, but was mistaken, and had to come back to town, a distance of four miles, for it. By the time he had succeeded in saving about 20 cents, and wasting \$2 worth of time, his wife was dead and the medicine a loss on his hands. That so wore on him that he fell ill. He took the medicine prepared for his wife, but that only aggravated his malady. When he finally recovered he sued me for \$10,000, and was beaten and had to pay costs. He then went before the Grand Jury and tried to have me indicted for malpractice."

This man is about on a par with the fellow who takes a medical journal for several years, and when asked to pay for it drops it back in the office and has it marked "refused."

The Times and Register.

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PHILADELPHIA, JUNE 8, 1895.

Original.



THERAPEUTIC NOTES FROM THE INFLUENZA EPIDEMIC OF 1894-95.*

By A. B. HIRSCH, M. D., Physician
to Charity Hospital, Philadelphia.

I am well aware, gentlemen, of the extensive literature of the subject of this evening's discussion and have no desire to enter into hypothetical arguments as to the causation of the disease. Neither is it my intention to deal to-night in fanciful medication nor to extol any of the useless quasi-proprietary articles of which the, as a rule, unprincipled drug factories have aimed at our devoted heads such endless volleys. On the contrary, remembering the precept that we must "despise not the day of small things," it is my wish to detail here my experience with such tried remedies as are found in the pharmacopeia and apply this to any novel phases of the disease as were this year witnessed.

Treatment of a case resolves itself into that of the acute attack and that of any of the numerous sequelae and an average one presents this year features much as follows: After some days of lassitude with anorexia, there is felt sudden marked debility with, possibly, nausea, some dry cough and severe rheumatic pains in the head and spinal region, thence radiating throughout the extremities. If under treatment these improve, there are relapses at irregular intervals. The chief symptoms of the acute attack, then, are the debility, anorexia, racking dry cough and "grippe" pains. Recognizing, therefore, the rheumatic nature of this

winter's outbreak, the patients avoided exposure to atmospheric variations by remaining in bed, between blankets, and in a well ventilated, warmed room. (Pans of water or even the steam atomizer were used in the room to prevent dryness of the mucous membrane, thus giving great relief.)

As if to return to the practice of free emesis at the onset of acute disease, so much more common in the practice of several generations ago, all my cases did well generally and noted much relief from the abdominal pains in particular from calomel and soda in divided doses or a single full dose followed by salines. The liver engorgement, nausea, borborygmi, etc., all improved, and there was a corresponding favorable change in the cardiac action and, often, in the mental depression.

For any remaining tenderness below the ribs the wet pack, applied day and night, seemed grateful. A caution is, however, needed against wrapping the folded moistened towel or single sheet entirely around the trunk, is renewed muscular (rheumatic) pains may follow: Instead, apply it only about the front of the body, from the ribs to the hips, so as to avoid the spinal muscles, and cover with a dry flannel to protect the bed clothes; it will then well serve its purpose.

Treatment of the rheumatic pains can be summed up in a few words as any of the synthetical coal-tar remedies will suffice, when properly guarded against cardiac depression by strychnia in full doses: daily doses of one-twelfth to one-tenth of a grain are required. Morphia was

*Read at a social meeting of the staff.
May 4, 1895.

this winter but rarely used for this symptom, as it only seemed to postpone recovery. This, of course, was intended for severe pain, but, when fever was marked and the former absent, then I depended on sponging and wet packs. One case was wrapped for nearly an hour in a wet sheet, surrounded by blankets and with a happy result.

For the peculiarly neuralgic cephalalgia this formula, made into a compressed tablet, was much used and invariably gave relief:

R—Natri brom.....gr. v.
Caffein. Citrat.....gr. ss.
Acetanilid.....gr. i.
Ext. Hyoscyam.....gr. ss.
Morph. Sulphat.....gr. 1-50

M. Sig: To take one tablet every 20 minutes for six times or until relieved. This gave more prompt relief than the Brown-Sequard or other neuralgic pill and made a less dangerous combination. When pain could be localized, then a rubber water bag filled with very hot water was of value, or relief was gotten from this liniment, well rubbed into the spot every four hours:

R—Menthol.....fluid drachms j.
Liq. Opii Comp.....fluid drachms iv.
Lint. Aconiti.....
Lint. Belladon.....fluid drachms iij.
Chloroformi.....fluid drachms vi.
Lint. Terebinth.....fluid ounces j.
Lint. Saponis q.s.ad.....fluid ounces iv.
M. ft. Lint.

Not of minor importance in my cases were the gastric symptoms almost invariably present, but as these showed no variation from ordinary cases of gastro-intestinal catarrh, I need lay stress on but a few details of treatment: The calomel and soda powders, with a saline, were given at the start of all the cases, followed generally by the wet pack, after which salol and bismuth in small doses helped to improve the catarrh present. When the nausea failed to improve, however, this formula, compressed into a tablet and given every half hour for five or six doses, soon brought relief:

R—Creosoti.....m. 1/4
Cocain. Muriat.....gr. 1-20
Cerium Oxalat.....gr. ij.
Tr. Nucis Vom.....m. 1/4
M.

The depression usually existing

demanding free use of diffusible stimulants, and of these there was an ample variety. But it was noticeable that the catarrhal irritation of the gastro-intestinal tract often produced nausea whenever a milk-punch was taken and it was here that a native claret answered well.

The diet ordered each patient showed nothing peculiarly novel as, when milk disagreed, taken alone, then vichy water was added or cream and vichy substituted; so, also, curds-and-whey and fermented or peptonized milk was employed. By alternating between any of these and milk-punches or claret punches, some form of food or stimulant was regularly administered every two hours by day and as occasion demanded during the night. The gastric cases usually declined all food in the first 24 or 36 hours of the attack. Meat in its varieties and preparations was objected to in the acute stage by most patients.

When diarrhea was occasionally present it was easily controlled by copper arseniate in solution, gr. 1.100 being taken every half hour.

Mental depression complicated some cases and these, when gastro-intestinal symptoms were absent, responded favorably to a good dry champagne, the patient brightening up in a gratifying manner. Otherwise, nitro-glycerine was employed. And here I will add that some of our native wines equal for this purpose the more expensive foreign product.

Speaking broadly, it may be assumed that the cases treated in this epidemic proved of a milder type than in past years, but the vasomotor relaxation was marked by unusually severe and drenching perspirations. These occurred at irregular intervals and were controlled only by atropia sulphate, agaric and its alkaloid proving of but little avail.

As for the irritating dry cough present, nothing so promptly relieved this as frequent doses of cubebs or tereben, singly or combined. I am indebted to our colleague, Dr. Sinexon, for the formula which has been very frequently ordered by me and to great advantage: R: Tereben, 1

dr.; tr. cubebae, 2 dr.; syp. pinus alb., 1 oz.; spts. St. Croix. q. s., ad 3 oz.; M. Sig. One dessert spoonful to be taken hourly until expectoration is free and thereafter every four hours. The rum and syrup make the mixture at least bearable if not quite a palatable one, so that it may be allowed to trickle down the throat and produce an extra (local) action. The syrup is unofficinal but, the formula being known, it is prepared in many Philadelphia shops. Each dose would represent gr. 1. 21 (3-64) of morphia sulphate, and a few minims of chloroform, thus requiring some caution in prescribing.

The subacute and chronic stages of the disease call for no peculiarities in medication and it is because of such fact that I shall dwell no longer on this phase of the subject.

In this outline of treatment, gentlemen, it has been my aim to show that we can avoid cumbersome methods, and if it shall draw out similar experience from my colleagues my object will have been attained.

DISLOCATION OF THE HEAD OF THE HUMERUS COMPLICATED WITH IMPACTED FRACTURE OF ITS ANATOMICAL NECK.

By JOHN B. ROBERTS, M. D., of Philadelphia.

A boy, 9 years old, was brought to my clinic at the Women's Hospital, on February 22, 1895, by Dr. Marie K. Formad on account of an injury to his left shoulder. About a week before Dr. Formad saw the boy professionally and ten days before I had an opportunity to examine him he had fallen at school and struck the shoulder against a wall.

He had been brought to the hospital two days before I saw him, and Dr. Anna M. Fullerton, with Dr. Formad, examined him under ether and reduced what seemed to be subcoracoid dislocation of the head of the bone. Both of these physicians were struck by the flattened appearance of the deltoid region, and say that the bone distinctly snapped into place during the manipulations

which they made. They could subsequently put the boy's hand on his head and on the opposite shoulder. These positions could not be given the bone before etherization and reduction of the dislocation. The shoulder had still, however, an unusual appearance, notwithstanding the reposition of the luxated bone. The case was accordingly referred to me.

When I saw him the acromion was unduly prominent. The left humerus was apparently half an inch shorter than the right, and the width of the upper end was markedly increased. The greater tuberosity, which could be easily felt, for the boy was not very fat, rotated when the lower end of the humerus was grasped and given a rotary motion. The head of the bone, which I could feel in its normal position, also moved during this manipulation. I felt at times a grating like that of crepitus, but this did not seem to pertain to the humerus so much as to the scapula. It seemed to be in the posterior portion of the joint; but I could make out no fracture of the neck of the scapula, as was suggested by the situation of the grating.

The boy could voluntarily move his arm upward and outward without pain, though these movements were made in a guarded and careful manner, as though he feared suffering. The movements were not very extensive, but showed that the continuity of the humerus was maintained.

Being unable to make a diagnosis without giving pain I etherized him. I then found that rotation of the lower end of the humerus caused similar motion of the head of the bone, but that if I held the head still with my left hand I could, by means of my right hand, holding the shaft of the humerus, cause a bending or rocking motion between the head and the shaft. This movement was between the greater tuberosity and the head. It was apparent that there existed a connection between the shaft and the tuberosity, and also between these portions of the bone and the head; but an antero-posterior rocking motion could be made between the shaft and tuberosity on the one hand and the head on the

other. There was no fracture of the neck of the scapula and no dislocation of the head of the humerus.

Three conditions were suggested by these symptoms: First, a firmly impacted fracture at or near the anatomical neck, which allowed the whole bone to move when rotary motions were given to the shaft of the humerus, but which permitted bending between the head and greater tuberosity. Second, a partial or green-stick fracture at or near the anatomical neck. Third, an epiphyseal separation of the head with impaction. The fracture, whether impacted or of the green-stick variety, had permitted the dislocation, which also existed originally, to be reduced under ether by Dr. Fullerton and Dr. Formad. The rigidity maintained at the seat of fracture had been sufficient to permit the head of the bone to be put in place by leverage obtained from the shaft of the bone. The manipulations needed to reduce the luxation were not forcibly made, and the replacement was easily accomplished. Hence, the fracture could not have been produced by these efforts.

The widening of the upper end of the humerus, which was very conspicuous, and the apparent shortening of the humerus, inclines me to the theory of impacted fracture. The age of the child suggested, however, a green-stick fracture as a possibility. By forcible manipulation I obtained complete separation of the fragments. The sensation imparted to my hands was that caused by disentangling or breaking apart two pieces of bone. Subsequently the arm assumed the usual appearance of a fracture of the humerus close to the shoulder-joint. The crepitus originally felt in the vicinity of the scapula was probably due to the rough edges of the firmly impacted fracture rubbing against the border of the glenoid cavity. Having become convinced of the diagnosis, and having restored the proper conformation of the shoulder, I dressed the injury in the usual way—with a small pad in the axilla and a bandage to hold the arm to the thorax, which acted as an internal splint. . . . Union took

place promptly. When I last saw the boy, about eight weeks after my first examination, there was a little unnatural prominence of the acromion, and the head of the humerus seemed to project forward a little more than usual. These appearances may have been due to atrophy of the deltoid. The movements of the joint were perfect.

GONOCOCCI IN THE VAGINAL SECRETIONS.

Buttner in the space of three months examined 54 prostitutes of Dorpat, to ascertain whether or not they were affected with blennorrhagia. Of these 32 were subjected to a semi-weekly examination through the speculum; the other 22 were encountered in the hospital. Of these latter, in only six did microscopic examination show the presence of a blennorrhagia. In 11 of the remaining 16, or 68 per cent., bacteriologic examination showed the presence of the gonococcus in the vaginal secretion and the same result in nine, 28 per cent., of the prostitutes registered by the police. Among the prostitutes under treatment in the hospital, Dr. Buttner made a separate examination of the vaginal secretion, the cervical mucus and the secretion from the urethra. In the 11 women with manifest blennorrhagia he never found the gonococcus in the vaginal secretion. This microbe was found six times in the cervical mucus and the urethral secretion at the same time; four times in the secretion from the urethra only; once in the cervical mucus only. The author concludes that the examination of prostitutes as it is practiced at present does not give sufficient basis for the establishment of a certain diagnosis.—*Journal American Medical Association.*

A French medical authority asserts that death caused by a fall from a great height is absolutely painless. The mind acts very rapidly for a time, then unconsciousness ensues.

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THE PRESENT STATUS OF RECTAL SURGERY.

The modern progress of the surgery of the anus and rectum has not kept apace with that of the proximate organs, the urethra and bladder; nevertheless, though this is true, a marked advance has been made on many lines.

Iliac colotomy, or colostomy, for malignant obstruction has been a decided gain over the deep lumbar incision.

Rectal illumination, by the tiny incandescent light, has made possible complete ocular exploration, as far as the sigmoid flexure; and without doubt in properly selected cases Kraske's operation is a valuable one.

The local use of cocaine solutions on the surface and hypodermically in itself marks an era in ano-rectal surgery.

Surgeons are not yet in accord on the most satisfactory, safe and simple methods of treating hemorrhoids and ischio-rectal fistulae. In the Medical Press and Circular for April 10, 1895, a Mr. Swinford Edwards, in reviewing the subject of ano-rectal diseases, credits America with being the first place in which carbolic acid injections were adopted in the treatment of piles. The writer expresses a preference for this line of action, and says that "it causes little or no pain and no risk to life." This is certainly a most extraordinary statement, for we have met with cases in which the phenic-acid injection was employed, followed by the most agonizing distress, consecutive ulceration and exhaustive hemorrhage.

Digital manipulation, twisting, crushing and destruction of the hemorrhoidal tumors is spoken of as barbarous and rough. But the writer evidently never employed this method, and is, therefore, influenced by a preconceived prejudice, for of all radical hemorrhoidal operations it is entirely painless; there is no cutting or mutilation of tissue or danger of systemic poisoning, as there is when a corrosive toxic agent is immediately injected into the tissues.

Finally, it should not be forgotten that anal varix is an exceedingly common pathological condition which seldom calls for radical measures.

Simple, local expedients, with constitutional treatment, should always antedate operative interference, and this latter should generally be of that character which is not attended with grave dangers, produces no systemic shock and is permanent in its effects.

DR. WILLIAM B. ATKINSON HOLDS THE FORT.

At the late meeting of the American Medical Association a quiet but determined effort was made to displace the secretary, Dr. William B. Atkinson.

The move was something in the nature of a surprise to many of the members, and when the word was

passed along the line that the veteran secretary was to be decapitated a formidable opposition was developed, the force of which made itself felt in an unmistakable manner when the time came to vote on the question.

Dr. Atkinson had for 31 years served the Association with honor and fidelity, in that long space of time, never missing an annual meeting, whether convened on the shores of the great lakes on the North, or the gulf on the South, on the Atlantic or Pacific seaboard. No one ever questioned his integrity or sincerity. But he has the misfortune to be advancing in years and cannot well adapt himself to the new-fangled notions of modern theorists; and, hence, must be sacrificed. The scheme to displace him moved smoothly through the nominating committee, which dropped him, and, recommended another candidate.

In the past it has been practically an unwritten law for the main body to accept, without hesitation, the roster of this committee. It was soon evident, however, in this case, that an exception was to be made.

Immediately on the submission of the report a motion was made to substitute the name of Dr. Atkinson for the one offered. Now, Dr. Osler took the floor and charged Dr. Atkinson with incompetence. His remarks were met with such derisive opposition that he was induced to make some intemperate remarks, reflecting on the whole Association.

This speech most effectually destroyed whatever hope remained for the new candidate, and was quickly followed by a scathing rejoinder from the veteran, Dr. Isaac N. Quimby, of New Jersey. He made a masterly argument for the old secretary, and strongly hinted that Dr. Osler might "do some sweeping before his own door;" that as the chairman of the Committee of Arrangements he was a signal failure and though a member high in his profession, he had done but little yet for the American Medical Association. Dr. Atkinson, as he should be, was re-elected by a large majority.

It certainly is important and necessary that we have an active and com-

petent secretary, though until we have more proof than any that has come forward yet we are convinced that we may do worse than support the member who has given us the best years of his life.

Increasing vigilance is imperative to preserve the national association from disaster and disintegration. The spirit of quackery has a strong grip on many in our times who regard the enforcement of any code as a galling yoke, and yearn for the time that they may be free to consult with the horde of charlatans and irregulars that infest our country. To capture the secretaryship would be to open the way. The attempt has been signally defeated and the American Medical Association has once more proved that it is yet sound on medical morals.

OUR TRIP TO THE SOUTH.

BY DR. J. B. CLAUSEN.

"This train for Wilmington, Baltimore, Washington and the South; Wilmington first stop." These words of assurance to the timid travelers and of warning to those who do not always heed Davy Crockett's advice, "be sure you're right then go ahead," had scarcely echoed through the train before it moved slowly out of Broad Street depot, out over the elevated extension, and was soon speeding toward the land of the palmetto and cotton plant. Yes, and of the pine, for one object of our trip was to stop at that fast-growing popular health resort, Southern Pines, N. C., though our final destination was Atlanta, Ga.

It is needless to say anything in praise of our own "Pennsy" or of the trip from here to Baltimore. Suffice it to say that we left the train there and took passage on one of the magnificently appointed steamers of the Old Bay Line, and were soon gliding over the placid bosom of the beautiful Chesapeake en route for Portsmouth, Va. With every provision made for your comfort, nothing can be more delightful than this trip down the bay. With everything to tempt an appetite already freshened by the purer, bracing air, with every-

thing to make pleasant the enforced leisure of being "aboard ship," and with attendants whose politeness seems to anticipate your every need, there is left room for but one regret, and that is that this ideal existence cannot last longer. But as in this life all things, especially pleasant things, must soon come to an end, so does this most charming miniature voyage, and Portsmouth is reached only too soon. Here we are transferred from perfection of travel by water to perfection of travel by land; a fact that all must admit who have traveled over the Seaboard Air Line to the capital city of Georgia or intermediate points. A well-ballasted roadbed free from dust, rolling stock that will compare favorably with the best in the North, fast time and courteous attendants and officials, all combine to make travel by this road anything but unpleasant, while the beauty of the country through which you pass is a source of never-ending pleasure. After a few hours run we reach Raleigh, the capital city of North Carolina, and the head centre of the old Southern aristocracy. Everything about this old and beautiful city is suggestive of the South "befo' the war, sah," and nowhere south of Mason and Dixon's line are memories of the lost cause more deeply cherished. This sentiment has lately found expression in a colossal monument recently erected at the western entrance to the Capitol Square, and which will be unveiled on the 20th of this month. The monument, which is of Mt. Airy granite, is 72 feet 6 inches high, and is surmounted by a bronze figure of an infantryman in light marching order standing in an easy attitude, with musket lightly clasped with both hands. The statue is 10 feet high and weighs 2500 pounds. In addition to this figure there are two others, about half way up the shaft, and facing in opposite directions. One is that of a cannoneer with a rammer in his hands, and the other that of a cavalryman, dismounted, in a spirited attitude, with sabre half drawn. These two figures are life size and, together with the one that surmounts the monument are studies

from life, the models being veterans now living in Raleigh. On the base are circular bronze medallions, with the seals respectively of the Confederate States and of North Carolina. The entire design is remarkably fine, and is set in relief against the massive building in the rear, while it directly faces a noble vista of avenue. The cost of the monument was something over \$25,000. Raleigh possesses many beautiful residences, churches and public buildings and, aside from these, there is much about the place to interest a visitor from the North.

Again we board a train on the Seaboard Air Line, and after a run of some 60 odd miles find ourselves in the sand-hill region of North Carolina, and later enter into the pine belt, in which is situated Southern Pines. A few miles further and we are there, and have decided, long before we reach the hotel, that the place is well named. Pines there are everywhere, and even were you unable to see them the balsamic odor that permeates the atmosphere would bear evidence to their presence. As to the healthfulness of Southern Pines there can be no question. Nature has provided it with a perfect system of underground drainage, for so deep is the sand that the most delicate invalid may venture out immediately after a rainstorm without fear of returning with wet feet. The air is pure and dry and laden, as we have intimated, with balsamic odors. It should be, as it is rapidly becoming, the Mecca for people suffering from pulmonary complaints. There are a number of pretty cottages here, and several hotels, but new hotels are badly needed, while better management is needed for those already here. While little fault could be found with the rooms at the hotel at which we stopped, the cuisine was simply abominable.

Under these unfavorable circumstances we made but a short stay at Southern Pines, but hurried on to more comfortable quarters at Atlanta, Ga., which we found busily preparing for her great Exposition, to be opened in September next. Of

this beautiful and thriving Southern city we have already written, and of the Exposition to be shortly held there we hope to have the pleasure of writing, so we will only add here that it will certainly pay those who can possibly make it convenient to do so to visit Atlanta in September next.

Of our return trip we shall say nothing at this time, while lack of space forbids our referring to many pleasing incidents on the out trip. One, however, we can't forbear to allude to. As you have probably noticed, people, when away from home, are very apt to throw aside its restraints. This gives the observant traveler a good opportunity for the study of human nature, and, if he is of a humorous turn of mind, he will see much to affect the risible muscles. As we have already intimated, this trip was no exception to the rule in this respect, and now for the particular case referred to. In our party was the popular pastor of a prominent church in one of our Northern cities. In his possession was a handsome umbrella, the gift of his parishioners, particular attention to which had been called by the clergyman's fondness for displaying it to every new acquaintance. Our reverend friend, one of the genial sort, determined on reaching Atlanta to see the sights, and all of them. To the accomplishment of this laudable purpose he allowed no old-fashioned notions of the fitness of things to stand in the way; for evening found him comfortably seated in the most popular theatre of the town, and, as subsequent events proved, under the glamor of a pair of sparkling eyes. At all events, sparkling eyes with their necessary accompaniments found for some time a large place in the doctor's thoughts and conversation. All pleasantly retrospective, until, all of a sudden, a terrible reality dawned on the pastor's somewhat muddled intellect—he had lost his cherished umbrella. Bright eyes were lost sight of in the thought of necessary explanations, and all his efforts were bent to the recovery of that umbrella. But efforts and inquiry were alike unavailing, and all

that the popular pastor had to console him for his loss was the memory of a pair of sparkling eyes, a memory, alas! now robbed of much of its sweetness. In conclusion we beg to repeat our foregoing advice—visit Atlanta next September.

A NEW PHASE OF MEDICAL CHARITY.

The last issue of the New York Medical Record considers editorially and pertinently a new phase of medical charity which will be indorsed by those men of experience in hospital work who know what these so-called charities mean. At a recent anniversary of one of the large and needy hospitals in the millionaire district of this city a speaker filled with enthusiasm for the benefits of the present hospital system is reported to have said that one of its greatest boons was the saving of expense to the rich man. In proof of such an unjust and outrageous claim he bolstered his statement by comparing the items of expense when a patient was treated at an ordinary hotel by his regular medical attendant with those in a well-equipped charity institution supported by the liberal contributions of a Christian organization. Instead of a daily expenditure of \$5 for hotel accommodations, \$5 for a trained nurse, \$5 per visit for the physician, and \$5 more for the board of the nurse, not to speak of the cost of the medicines from an expensive pharmacy, the patient who entered the hospital in question needed only to pay for his board and a private room. All other outlays were unnecessary and were included in the one item named. Naturally in this connection we think of the physician, who is the only one whose services are virtually considered of no account. The high price of the room added to the donations of the charitable enable the hospital to make a handsome profit, even including the general expenses for nurses, medicines, instruments and dressings. The attending physician or surgeon, who might be looked upon as the real personage who makes any hospital what it is, is not only en-

tirely ignored, but a deliberate attempt is made to swindle him and his outside associates in attempts at gaining a legitimate livelihood. It would appear from all this that the evolution of medical charity is distinctly in the direction of eliminating the doctor. Another step in this direction would be for hospital managers to go into the wholesale proprietary medicine business and prescribe remedies on their own account free of cost to the patients. Why should not money be invested as well and as profitably in medical charities and millionaire clinics as in railroads, wheat and mining stock? The men who run the hospitals can command all the needful capital on the hypocritical plea of charity to the poor, can obtain medical services free, can build magnificent edifices, endow beds for cast-off servants, beg for church subscriptions, and what is to hinder them from running the medical charity business entirely in their own interests? They are doing it all the time, though less openly than the distinguished speaker in question has so frankly admitted.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

OBSERVATIONS ON SOME CHARACTERISTICS AND RELATIONS OF THE DYNAMIC AND STATIC FORMS OF ELECTRICITY.

BY A. D. ROCKWELL, M. D., NEW YORK.

Presented before the Neurological Section of the Am. Medical Association.

The more thoroughly one studies electro-therapeutics in all its relations—medical and surgical—the clearer it becomes that the real scientific basis for the use of electricity in medicine and surgery is found in electro-physics more than in electro-physiology; and, therefore, in study-

ing the therapeutic characteristics of electricity, and the relation of its various forms to each other, one cannot be too well grounded in the laws of electro-physics.

One of the most perplexing questions to the tyro in electro-therapeutics relates to the differential indications for its use, but if one is well-equipped with a knowledge of physics and with a well directed clinical experience, the various special problems that arise in practice, whether of a theoretical or a practical character, very quickly resolve themselves. Often in discussing the subject with members of the profession, more or less interested in electro-therapeutics, I have noticed a manifest tendency to use one form of electricity to the exclusion of the others, and an especial tendency among some to discard the faradic current, in favor either of galvanic or static electricity.

The contention is, on the other hand, that its quantity is so small as compared with the current direct from the cells, that to mechanical influences alone must be attributed whatever beneficial effects follow its use, and on the other that its nutritional effects are inferior to the static form of electricity because of the tremendous electro-motive force or voltage of the latter. Broadly speaking, seeing that static electricity is all voltage with little amperage or quantity and that the galvanic current is all amperage with little voltage—while the faradic current occupies a position between the two—there are in these conclusions a manifest contradiction. The truth is that each has, in some respects, a special field of its own, and not one of the manifestations of electricity can be dispensed with, if one expects to get all the results that it is capable of giving. In regard to the faradic current, therefore, it has been urged that other mechanical methods—massage, tapping—and contrivances for producing rapid vibratory movements are equally serviceable. Those, however, who hold these views have but a very incorrect appreciation of the true action of the faradic current and have certainly fallen far short of

completeness in their practical experience with it.

Many years ago, when I first began to use electricity in practice, my efforts were of necessity confined to the faradic current. Galvanic apparatus were not obtainable, and whenever it was desired to use the galvanic current one had to resort to the inconvenient and ill-smelling voltaic pile. This necessity was not altogether without its advantages, however, since it for the time being relieved me of the somewhat perplexing problem of current differentiation and enabled me to give undivided attention to the faradic current. One of the most common observations as to the effects of a thorough general application was a relief of muscular tire after prolonged activity, and an increase in the flexibility of limbs that had become sore and stiff after the rest following excessive and unaccustomed muscular exertion. One does not have to search far for a rational explanation of these well known effects of electricity, although at the time a general want of appreciation of the physical characteristics of the current gave to most of the explanations offered a fanciful rather than a scientific and practical basis.

Mechanical influences were undoubtedly predominant, not, however, as manifested by vigorous muscular contraction, but through molecular agitation, sufficient to give passive exercise to both the superficial and the deeper lying tissue. In these cases we get, associated with cell exhaustion, a condition of circulatory sluggishness with a deposit of the toxic products of metabolism, conditions which are well adapted to appreciate the corrective and exhilarating effects of molecular agitation.

It is on this self-same principle that the faradic current is now applied with such admirable results in chronic congestions and indurations of the uterus and affords such instantaneous relief in some of the simple non-mechanical varieties of dysmenorrhea. The blood flow in the over-congested organ is accelerated. A sort of circulatory drainage is established and a healthy local action

more quickly and effectually brought about than by any known method. If, therefore, we obtained from the faradic current effects that were simply mechanical and nothing more, we would still find it a very good thing to aid us in our therapeutic efforts. We do not get from it, to be sure, any marked chemic, or endosmotic or exosmotic effects, but we do get physiologic effects of the most pronounced character, and as the physiologic effects of electricity take place in living tissues alone, while all other effects are observed in the dead as well as the living—in inorganic as well as organic substances—these physiologic effects are of chief concern to us as physicians in the consideration of the nutritional effects of electricity. We find then that this current accelerates the circulation, influences the secretory and excretory processes of the body and hastens absorption. To what extent these physiological effects are of mechanical origin no one I am sure is yet quite prepared to say, but the results which follow this method of treatment render it reasonably certain that we get upon the nerve structure itself, together with mechanical effects, influences of an entirely different character.

The claims made as to the advances in electro-therapeutics during the past few years are large, perhaps too large, but yet in some directions—especially in the realm of gynecology—much has been accomplished. Interstitial electrolysis as suggested by Gautier is a method of considerable interest, and, although it may not fulfill the expectations of its author, yet some promising results have been reported, and more may be hoped for. By this method the chemic action of the positive pole is utilized, not only for its effects upon the tissue itself, but upon the metal electrode, mainly copper or zinc, that are applied directly to, or inserted into the diseased part. In this way new salts are formed and deposited in the tissues, oxychlorid of zinc when zinc, and oxychlorid of copper, when copper electrodes are used. It is the cataphoric property of the current, however, which car-

ries or forces these salts, the product of electrolytic action, through the surrounding tissues to a greater or less depth, according to the strength of current and length of treatment. The technique of this treatment cannot be entered into here, further than to say that the positive pole is always the active pole, and that the necessary current strength is from twenty to forty ma. The best results seem to have been obtained in diseases of the endometrium, although the method is applicable to various other diseases of the uterus and appendages.

Another advance in the utilization of the galvanic current is by what may be termed the depolarizing method. In 1892 I described the depolarizing electrode, with experimental observations, and in 1893 some suggestive clinical results following the use of the method in various forms of disease. Briefly stated, the idea is to altogether eliminate either one or the other pole, according to the indications for treatment. By using an electrode with resistance in ohms equal to or greater than the resistance offered by that portion of the body between the electrodes, the neutral point is thrown outside the body, which may, at will, be brought under the influence alone of either the negative or positive pole.

It would not have occurred to me to consider the possibility of any special therapeutic effect being associated with this simple and well-known fact of electro-physics had I not been led to make some experiments that revealed a number of exceedingly interesting and suggestive phenomena—and quite new so far as I can find out—in the realm of electro-physiologic experimentation.

If two needles connected with either pole of a galvanic battery are thrust into a piece of raw beef and a current of sufficient strength allowed to pass for a few minutes, litmus paper applied at the point of entrance of the positive pole shows the regulation acid reaction and at the negative pole an alkaline reaction. If now we intercalate on the negative side a properly constructed elec-

trode having a resistance sufficient to throw the neutral point outside the body, a very different condition of things is seen. At the positive pole the same strong acid reaction is obtained, but under the negative pole there is little if any observable reaction. On testing the liquid, however, inside the electrode—the seat of the neutral point—the alkaline reaction is obtained, the same as at the point of contact on the body when the ordinary electrode is used.

The most interesting experiments, however, were those made on the legs of a frog, which, as is well known retain their irritability to stimuli for a long time after death. If after decapitation, the hind legs of a frog are subject to the influence of either the positive or negative pole by the use of ordinary electrodes, the changes in irritability are imperceptible. If, however, they are subjected to the influence of the positive pole alone, the action of the negative pole being eliminated in the usual manner, the muscles of the thigh will exhibit very decided diminished irritability. If, on the other hand, the action of the positive pole is eliminated, and the limb is subjected to the action of the negative pole, we get the characteristic phenomenon of cataleptotonos or increased irritability, and the muscles readily respond to current much weaker than when they are in their normal condition. Even more interesting and suggestive than these experiments were those relating to the modification of nerve irritability by ascending and descending currents, proving conclusively that used after the depolarizing method the direction of the current is an essential factor in its action.

These phenomena and various others, are all readily verifiable, and for a more detailed account I refer to former articles.*

Utilizing the suggestions offered by these interesting physiologic observations, I have not infrequently found it possible to favorably modify and even permanently relieve various conditions that formerly were not re-

*See New York Medical Record May 14, 1892 and May 6, 1893.

lieved by the ordinary methods of application.

So far as the faradic current is concerned the great utility of currents of high tension when applied through low resistance in the human body, and especially by the bi-polar method, cannot be over-estimated. As an analgesic in uterine and abdominal pain when passed through the low resistance of the mucous membrane these induced currents of tension are of the greatest value, but so far as outward applications of the faradic current are concerned, I doubt whether we have made much practical advancement, either in the methods of application or in the efficiency of apparatus—and in saying this I do not forget the alternating sinusoidal current introduced into electro-therapy by D'Arsonval, the essential nature of which is that it has a uniform rise and fall of potential from zero to the maximum and back again in both directions. For this current it is claimed that it possesses greater penetrating power than the ordinary faradic current, and that less pain attends the vigorous muscular contractions that it produces.

My own experience, however, teaches me that the old continuous coil with its two-thousand feet of wire and its perfect rheotome attachment yields a current, the essential characteristics of which, as an aid to nutrition and for general tonic effect when applied externally, has not yet been surpassed. It has always seemed to me that the most important thing in the use of electricity in medicine, the fundamental idea upon which all its therapeutics is based, is its nutritional power. It is this idea which, in connection with Dr. Beard, I enunciated many years ago, and upon which I have based almost everything I have said or written upon the subject since. As to which of the various manifestations of electricity possesses the greatest efficiency in this direction, ideas will differ according to the extent and character of one's experience. Static electricity is undoubtedly a most valuable addition to our armamentarium. I could not afford to do

without it. No one who expects to meet the demands of all the varying idiosyncracies of the nervous system can afford to be deficient in the completeness of his electrical outfit. And yet the introduction and popularization of static electricity is responsible for a vast amount of unscientific and inefficient work in electro-therapy among those who confine their efforts to this form of electricity, with little knowledge of the subject in its entirety. With a magnificent static apparatus in all its pyrotechnic glory, set in motion and readily controlled by an electric motor, the treatment of a patient becomes the simplest and easiest thing in the world both for the physician and patient, and I should be glad to assure myself that it is the most efficient method of securing the tonic and nutritional effects of electricity. But after years of observation and comparative trial I regret that I cannot come to this conclusion. I regret it because it has the great advantage of ease and simplicity of application over the general use of the faradic and galvanic currents. For other reasons, however, it is not to be regretted. It would indeed be a misfortune if in order to obtain satisfactory nutritional effects from electricity, the costly static apparatus which few can possess was an absolute necessity. Static electricity must ever be considered as an adjunct, merely, to the dynamic form of electricity, and this truth will always be taught by those who combine both an honest purpose and a thorough, experimental knowledge along all the lines of electro-therapeutic work.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

The American Electro-Therapeutic Association will meet in Toronto, on September 3, 1895, and its Standing Committee on Electrodes is endeavoring to secure before that date the universal adoption of uniform connections, a standard gauge of screw throughout construction, and efficient, durable, simple and interchangeable electrodes.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

INTRAPARENCHYMATOUS INJECTIONS OF ALCOHOL IN THE TREATMENT OF UTERINE CANCER WHICH CANNOT BE OPERATED UPON.

By PROFESSOR VULLIET in the
Nouv. Arch. d'Obst. et Gyn., October,
1892.

Cases to be treated by injections of alcohol may be divided into two groups: 1. The cancer is at too advanced a stage to be removed by hysterectomy. 2. The cancer has been removed by hysterectomy, but there is reason to suspect infiltration of the adjacent tissues; also cases of return of the process after operation. In less advanced cases, and wherever removal of the uterus will entirely remove the cancerous growth, hysterectomy is always to be preferred. Vulliet's method consists in the injection of absolute alcohol into the parenchyma of the neoplasm and adjacent tissues. He reports four cases in which his treatment checked the loss of blood and seemed to arrest the progress of the disease. As regards the technique, he first secures asepsis of the vagina, cervix and cancerous surface by spraying these parts with a soda solution, followed by a 1-1000 bichloride solution, any fluid in excess being absorbed by tampons. As a usual thing, no anesthetic is given. The patient is placed in the genu-pectoral position, and two or three Pravaz syringes, filled with absolute alcohol, are put within reach of the operator.

The first injections are made in the centre of the neoplasm. In cases of scirrhus cancer the needle at once penetrates a hard, injectable tissue, but in encephaloid cancer a soft, friable tissue incapable of retaining the fluid is the first met with, and must be traversed to reach the normally resistant tissue. This reached, three or four drops of alcohol may be injected. Should a slight hemorrhage attend the insertion of

the needle, the alcohol should not be injected until the flow ceases. The first syringe is left in place, and a second, third and fourth injection made with as many syringes, after which they are consecutively removed; this will prevent the non-retention of the alcohol which often follows immediate withdrawal of the needle. In non-sensitive patients nine to twelve injections from centre to periphery of the neoplasm may be made, the last circle of injections being in the normal or apparently normal tissue surrounding the growth. As a rule this treatment is well borne, but exhausted, timid patients and those addicted to the use of morphine frequently are able to bear only one or two injections at a time. In such cases the treatments should be less severe, but at shorter intervals, or else anesthetics should be given. Vulliet would give an anesthetic once a month, and two treatments without anesthesia in the interval.—American Journal of Obstetrics.

THE MURPHY BUTTON.

The invention of the button which bears his name by Murphy, of Chicago, has rendered the operation of intestinal anastomosis easy of performance, and has quite put the use of Senn's decalcified bone plates in the shade. The British Medical Journal, for April 20, contains the reports of three cases in which Murphy's button was used—by Morton, of Bristol; Murphy, of Sunderland, and Day, of Norwich. The first of these used the button in a case of intestinal obstruction due to malignant disease, a case which was further interesting as occurring at the early age of 27. Dr. Murphy's case was one of enterectomy for gangrenous intestine, following acute intestinal obstruction. It well illustrates one of the advantages of the button, for the time occupied in excising the gangrenous portion of gut, inserting and fastening the button, sewing the mesentery and securing the bleeding points, was four minutes and a half. The button was passed, per rectum, 19 days after the operation. Mr. Day's case was one of enterrec-

tomy for intestinal stricture, and is interesting from the fact that it was 66 days before the button was passed, the longest time on record. It is interesting to watch the progress of intestinal surgery—bone tubes, bone plates, potato plates and rubber tubes have all been used in enterectomy; and the rapidity with which each method has given way to one more improved, and, better still, more simple in the performance, shows in a striking manner how truly and how surely the surgery of the abdomen and intestine is going ahead.—*Medical Times and Hospital Gazette.*

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

ACUTE AND CHRONIC ANGIO-SPASTIC DILATATION OF THE HEART.

Dr. J. Jacob (*Centralblatt f. innere Med.*, No. 5, Feb. 2, 1895).—The author gives an account of a hitherto undescribed heart affection consisting in a transient dilatation of the heart, which, however, may become permanent from repeated attacks. The patient is attacked suddenly, or after slight prodromata—such as restlessness, fatigue and giddiness—by a rigor, sometimes accompanied by pains in the extremities or abdomen; at others by clonic spasms of the limbs. Cutaneous sensibility is diminished, and there may be complete analgesia. The face is pale, and the surface covered with sweat. The limbs are numb and heavy. Vision is hazy, the pupils are dilated, and there may be unconsciousness for hours. The patient has precordial distress, and respirations are frequent and deep. Cyanosis is rare; but in prolonged attacks there may be pulmonary edema. Sometimes there is a sensation of heart stoppage, at others of palpitation. In the one case the pulse rate may fall to 50; in the other it may rise to 200. The area of cardiac dullness is enlarged, and there may be pulmonary edema and albuminuria. The au-

thor describes the clinical features of the form with slow pulse, which brings the patient to a sudden standstill with labored respiration, sometimes with muscular cramp. In severe cases with cerebral anemia there is a sense of impending death with threatened unconsciousness, and the respirations become regular but rapid. This condition may last for hours or days, and then disappear with profuse sweating. The cardiac enlargement lasts about a week, the pulmonary edema and albuminuria ceasing first. Dilatation may not occur with every attack; but if the attacks are frequent it lasts longer, and may even become permanent. The production of this condition must be referred to one of three causes: (1) To disturbance of heart automatism; (2) to loss of balance between the heart cavities and vascular resistance; or (3) to undue stimulation or inhibition of the cardiac nerves. The author rejects the hypothesis of slowing of the heart having any causal relationship with cardiac fatigue and dilatation. Pulse acceleration, with its increased demands on the heart, would be a more probable hypothesis. The complex of symptoms will not fit in with disturbance of the *nervus accelerans*. The author lays stress on the hard, small pulse and initial rigor with more or less sudden remission as pointing to angiospasm. Arterial spasm, which spreads to the greatest part of the aortic arch, fully explains the cardiac dilatation. Treatment is discussed very shortly. The author finds his views borne out by therapeutic experience. Digitalis always fails. He recommends large doses of morphine subcutaneously 1-3—2-3 grain). It lessens the excitement of all the organs, especially of the vaso-motor centre, thus lowering blood pressure. Coldness of skin and other signs of angiospasm cease rapidly, and there is no concurrent depression of the circulation. Respiration and circulation soon become normal. Heart dilatation persists for a week, and the pulmonary edema for from three to four days. Even for threatened unconsciousness morphine is the best remedy. In the

treatment of the chronic condition carbonic baths take the first place; but they must be used with discretion.

ANTITOXIN AS PROPHYLAXIS.

Variot advises against the injection of the antidiphtheritic serum as a prophylactic means, as he has seen several children treated in this way show the following symptoms: Considerable rise of temperature, rapid pulse, prostration and disturbed heart action—the erythemas which may follow have frequently been pointed out. In consequence of these unpleasant symptoms and the fact that the immunity given by antitoxin is of short duration—not more than six weeks—Variot thinks that it is scarcely worth while to run the risks of preventing a disease which may not be contracted and which is besides capable of cure with the very means used as a preventive.—*Rev de Therap. Med. Chir.*

Aubrecht, of Magdenburg, has proposed the use of hot baths as a method of treatment in cases of cerebro-spinal-meningitis and has cured the disease by this means. It has also been efficacious in cases of simple acute meningitis. The baths are at a temperature of 32 R. (about 104 degrees F.), and the patient is kept in it for ten minutes. The improvement is marked—relief of headache, delirium, slowing and increase in volume of the pulse, lowering of temperature and increase of perspiration all take place. One or two baths are given per day and it seldom requires more than eight baths. The hot water acts as a revulsive—bringing the blood toward the surface and thus relieving the nervous centres.—*Rev. de Th. Med. Ch.*

HOW TO PRESCRIBE MURIATIC ACID IN DISORDERS OF THE STOMACH.

Huchard says that muriatic acid acts as an eupeptic and antiseptic. It is naturally indicated in all cases where there is ana or hypo acidity, that is to say, in chronic gastritis cancer—various pyruixiae, tubercu-

leisis, cardiac affections with gastric symptoms, often in chlorosis anemia and neurasthenia. But the diagnosis must be carefully made to avoid giving acid where there is already an excess. It should be given for a period of three weeks and then discontinued for two weeks. It is an excellent antiseptic and anti-fermentative agent in flatulency.—*Bulletin de Therap.*

Gynecology and Obstetrics.

APPLICATION OF FORCEPS IN OCCIPITO-POSTERIOR CASES.

Professor S. Tarnier (*Journal de Paris*, vol vii., No. 11).—He points out that spontaneous delivery may take place in one of two ways when the occiput is posterior: In one case the occiput undergoes a long rotation forwards so that an occipito-posterior is converted into an occipito-anterior case; in the other the occiput remains behind in the hollow of the sacrum, and if the perineum is yielding and the pains strong the head is delivered in this position, the posterior fontanelle being the first part of the child's head to be born. Supposing that the occiput does not rotate forwards and the head does not advance, an attempt should be made to rotate it forwards with the hand, and this can often be accomplished because the head still remains movable. If the occiput is to the right the left hand is introduced and the head seized, the thumb being placed behind the ear. The head is then rotated from right to left and from behind forwards, and the hand retained in position, because otherwise the occiput will again turn backwards owing to the fact that the shoulders have not rotated forward with the head. The right blade of the forceps should now be introduced, and after being placed in position is entrusted to an assistant to hold. By this means when the left hand is withdrawn the head is still retained in place. The left blade is then applied and the blades locked. On making traction further rotation

takes place as the head descends. When the occiput cannot be rotated forwards by the hand he recommends the following plan: The blades of the forceps are applied in one of the oblique diameters of the pelvis; so that if the occiput looks to the right sacro-iliac synchondrosis the left blade is opposite the left sacro-iliac synchondrosis and the right one opposite the right obturator foramen. When the forceps are in position the first thing to do is to flex the head, and this can often be accomplished by pulling on the traction rods. If in spite of this traction the posterior fontanelle still remains high up and difficult to reach, the handles of the forceps should be carried forward, at the same time that the traction is maintained on the crossbars. The head will thus be flexed, and the next thing to do is to aid rotation. This can be done by making the handles of the forceps describe a wide arc of a circle while traction is being made. The occiput having thus been rotated forwards, it will be seen that the concavity of the forceps now looks towards the hollow of the sacrum. If the perineum is resistant it is best either to take off the forceps and reapply them, or to allow the head to be expelled by the uterine pains after the blades are removed. If the pains are inefficient a manœuvre described by Ritgen may be employed, which consists in introducing a finger into the rectum and pressing on the forehead. In some cases, according to Tarnier, it is not necessary to remove the forceps, and by carrying the traction rods upwards and forwards the danger of cutting the perineum with the points of the forceps is obviated. He concludes by alluding to the fact that the manœuvre which is in France associated with the name of Ritgen was really first described by Smellie.

TWIN TUBAL PREGNANCY—RE-TENTION OF FETUS FOR FIFTEEN YEARS.

M. Folet, of Lille, communicated to the Academy of Medicine on the 12th inst. details of the above extraordinary case. His patient is a woman now aged 49 years, who, having

previously given birth to four children at full term, became, sixteen years ago, again pregnant. When the pregnancy had reached the ninth or the tenth month symptoms simulating labor occurred, blood and membranes being expelled, and the hemorrhage persisting for six weeks. This strange occurrence led to the belief that no pregnancy had really existed. The abdomen remained, however, voluminous, but for fifteen years nothing further happened to disturb her until a year ago, when repeated attacks of peritonitis determined her admission into the Saint-Sauveur Hospital, Lille, where laparotomy was decided upon. The operation was laborious on account of the presence of numerous adhesions of the foetal sac to the intestines. The sac was, nevertheless, excised almost entire, the too adherent fundus only being left in situ and stitched en collarete to the lower part of the abdominal incision. Recovery was complete in six weeks, no accident having occurred to retard it. The sac contained two foetuses—one which had at its death attained the age of two or three months, and the other which had reached the full term of nine months—a phenomenon which is so extremely rare in tubal gestation that only six or seven examples are recorded. The foetus exhibited at the Academy by M. Folet was not a lithopædion. Its tissues were supple, non-calcified, but were, nevertheless, as dense as coked bacon. With the exception of certain alterations undergone, the tissues had retained their structure recognizable by the naked eye and under the microscope. The peculiar lardaceous degeneration above mentioned will be further investigated by Dr. Curtis, professeur-agregé of Pathological Anatomy at the Lille Faculty.

SYMPHYSIOTOMY.

Professor Leopold gives (*Annales de Gynec. et d'Obstet.*) the following conclusions as regards symphysiotomy:

1. Symphysiotomy, as formulated by Morisani, is a great clinical victory. But the operation should not

be vulgarised. For the dangers it bears with it are very real, and in consequence it cannot replace perforation or even version with the general practitioner.

2. *Præparata* should not be subjected to symphysiotomy.

3. As regards the future state of women operated upon, there is as yet no time to pronounce definitely.

4. Hemorrhage and vaginal lacerations command great prudence, and affect the after-treatment.

5. As a rule symphysiotomy is applicable to pelves of from 7.5 to 6.5, or perhaps 6 centimeters in the conjugata vera. These cases should be sent to the clinics. A general practitioner under the same conditions should think of the mother and perform perforation.

6. In contracted pelves of 7 centimeters, if the medical man is consulted in time, premature labor should be induced. If too late for this then let the labor proceed naturally, keep the membranes intact until the external os is fully dilated. If the labor does not end naturally it is still possible to deliver children of good size at term with success, by version and immediate extraction if the following conditions are present: Membranes intact, complete dilatation, and the use of Walcher's position. (The patient has her legs hanging over the side of the table).

7. Exceptionally with these latter conditions all present and favorable, if version and forceps at the brim do not give any hope of effecting delivery, symphysiotomy may be used with these diameters.

the future lawyers and judges cannot but derive benefit from a *de visu* acquaintance with the fundamental processes on which forensic medicine is based.—*Journal de Medecine de Paris*.

A FATAL CASE OF HYDROPHOBIA.

M. Proust has brought to the notice of the Superior Council of Hygiene the peculiar case of a man who died at the Broussais Hospital, after three days' suffering, from unmistakable hydrophobia. It seems that the deceased has been bitten three months previously by a dog suspected of rabies, and that he had at once been taken to the Pasteur Institute, where he underwent the full anti-rabic treatment. In face of a case like this it is evident that every effort should be made towards the stamping out of the disease by means of a careful and systematic supervision of all dogs. (Undoubtedly prevention is better than cure; and even if the Pasteur method were infallible, which seems to be open to question, it would still be desirable to suppress the *fons et origo mali*.)—*Provincial Medical Journal*.

MILK FOR INFANTS.

Much as cows' and women's milk may vary in composition among themselves, as may also that of the same individual at different times, the essential distinction between the two milks lies in the larger percentage of casein in that of the cow and in the tougher consistence of the coagulum produced by the gastric secretion. The latter defect is to some extent overcome by malting, and the former may be adjusted to the infant's digestive powers by diluting the milk with water or by dividing the milk into two portions, coagulating the casein in one with rennet, removing the curd, and mixing them again. The former is open to the grave objection that dilution reduces the fat and the sugar, neither of which were in excessive amount, equally with the casein, and, though milk, sugar and cream may be added,

Miscellany.

A MEDICO-LEGAL INNOVATION.

In order that the law students of Odessa may acquire a practical insight into legal medicine they are compelled to attend all autopsies ordered by the judicial authorities, and Professor Korsch has received instructions to afford all the necessary explanations. It is evident that

cream itself contains very uncertain proportions of fat and cannot again be perfectly incorporated with the milk, the fat globules having to some extent coalesced. In the latter process the proportions of fat and sugar are undisturbed; but it is tedious, and the tendency of the milk to "turn" is increased. Gaertner has recently taken advantage of the action of the centrifugal separator to retain in a diluted milk the full percentage of the fat. Fifty litres of fresh milk and the same of water are poured into the separator, which is made to revolve at such a rate that the two outgoing streams shall be equal. The separation of the fat is thus incomplete, and a large proportion of the watery solution passes out with it, the percentages of casein and of fat being in the original milk, say 3.6 and 3.5, in the diluted 1.8 and 1.75, and in the cream and separated, or rather in the rich and poor milks, respectively 1.8 and 3.3 and 1.8 and 0.2, those in good nursing mother's milk being, according to Pfeiffer, of Wiesbaden, 1.7 and 3.1. If, then, milk sugar be added in the proportion of 3.5 grammes to the litre the composition becomes identical with the very richest human milk. An incidental advantage accruing from the centrifugal rotation is that the rich milk is completely freed from the suspended particles of dung, dust, etc., which in virtue of their greater specific gravity gather round the sides of the drum, forming a scum, which is fatal to young pigs. These particles are the chief vehicles of the microbes which set up putrefactive changes in a fluid which, though unstable, is absolutely germ free and aseptic as it issues from the breast or udder, and to this difference many of the evils of artificial feeding are doubtless due. Gaertner's, if not actually sterile, is more easily sterilized than other milk.

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

We learn with much pleasure that Dr. John B. Murphy, of Chicago, is to be among the specially-invited

guests of the British Medical Association, which holds its annual meeting this year in London.

Dr. Murphy is in every way qualified to represent American surgery, and is a living example of the prospects before any member of the profession, who has earned his advancement by honest and original work, for never, in the history of our country, has one in the medical profession, at his early age of 35, attained to his world-wide eminence. We feel confident that our British brethren will extend to him a most cordial welcome, worthy of him and the profession he represents.

A permanent national organization of the various State medical examining and licensing boards was effected at the American Medical Association meeting, May 9, 1895, at Baltimore, Md. Officers were elected for the ensuing year as follows: W. W. Potter, M. D., president, Buffalo, N. Y.; J. M. Hays, M. D., vice president, Greensboro, N. C.; B. M. Griffith, M. D., secretary, Springfield, Ill. Committee to draft constitution and by-laws: Charles McIntyre, M. D., Easton, Pa.; W. W. Potter, M. D., Buffalo, N. Y.; N. Payne, M. D., Albany, N. Y.

The purposes of the Association are to establish a uniform schedule of requirements for all medical colleges and examining boards, and assist in perfecting a method for higher medical education.

B. M. GRIFFITH,
Secretary.

Springfield, Ill., May 27, 1895.

KOLA NUTS.

Any of our readers may obtain from Frederick Stearns & Co., Detroit, Mich., two kola nuts for curiosity, or for planting by sending their names, mentioning this journal. We have received two of these nuts and advise any of our readers to try the experiment of raising a kola tree. The tree is fairly hardy and after it is started will live out in mild climates north of its natural habitat.

AN ANTITOXIN FOR CARCINOMA.

In the last number of the *Deutsche Medicinische Wochenschrift* Professor Emmerich and Dr. Scholl, of Munich, publish the results of experiments on the treatment of carcinoma by a new antitoxin. Through the researches of Neisser, Fehleisen and others it has become known that carcinoma is influenced for the better by erysipelas. Professor Emmerich now states that this influence depends on changes in the blood produced by the cocci of erysipelas, and he accordingly makes use of the blood serum of animals who have been previously affected with that disease. His mode of proceeding is to inoculate sheep with cultures of the cocci of erysipelas, and to abstract blood when they are in the stage of convalescence. The blood is then passed through Chamberland filters in order to remove the cocci, and finally put up in little tubes of ten cubic centimetres each. With this blood daily injections are to be made into the tumors—from 1 to 4 c.c. for small growths, and from 10 to 25 c.c. for larger ones. The patients treated in this way did not complain of any pain, the temperature did not rise above 38.5 C., and no other complications were observed. In nearly all the cases the general state of the patient became better and the tumors diminished. Professor Emmerich and Dr. Scholl say that they do not yet claim that their method is to take the place of operative procedures, but as very often an operator leaves small pieces of the tumor the injections would in those cases be capable of dispersing those pieces. They also say that they do not yet know whether their antitoxin is a general specific or whether it acts only against certain forms of cancer. Tubes with antitoxin can be procured from their laboratory, so that other medical men may try their method. As up to the present all specific cures for carcinoma have failed, the profession should be very guarded in forming an opinion as to the new remedy.—*Lancet*.

INTRACTABLE GALACTORRHEA.

Van Tussenbroek (*Repertoire Universel d'Obstet. et de Gynec.*, February 25, 1895) describes an unusually bad case in which this troublesome disorder followed an abortion at the fifth month in a primipara. Emaciation set in, and, as no therapeutic measures were of any avail, the mammae were amputated. Microscopic examination did not explain more than might be expected, the glandular tissue being in a very active condition.

NAVY CHANGES.

Changes in the medical corps of the U. S. Navy for the week ending June 1, 1895: Medical Inspector T. C. Walton ordered to examination preliminary to promotion as medical director; Medical Directors G. S. Beardsley, B. H. Kidder and W. K. Van Reypen ordered as a board to examine medical officers for promotion; Medical Director N. L. Bates, Medical Inspector J. M. Flint and P. A. Surgeon J. D. Gatewood ordered as a board to revise the book of inspections for medical officers.

PEROXIDE OF HYDROGEN.

BY J. P. PARKER, Ph. G., M. D., of St. Louis, Mo. Published by the *Annals of Ophthalmology and Otology of St. Louis, Mo.*, April, 1895.

I have used peroxide of hydrogen quite extensively for cleansing discharging ears, the nasal and accessory cavities, and have tried all the brands of the preparation in the market, and once thought one manufacturer's make as good as that of another, and bought the cheapest as a matter of economy, but recent experience has taught me that the difference in quality is greater than the difference in price. After an unpleas-

ant experience with a solution of peroxide of hydrogen which severely injured the mucous membrane, I bought and examined, chemically, a bottle of each preparation of H_2O_2 in the market, and was surprised to find so much difference. Some are useless, and others worse than useless because they contain too little available oxygen and too much free acids (phosphoric, sulphuric, hydrochloric). I now order Marchand's (medicinal) exclusively because I find it contains the desired quantity of available oxygen and not enough free acid to be objectionable, and its keeping properties are all that could be desired.

By inquiry I learn that Marchand's is the preparation that is used by almost all surgeons, and it is considered by them the standard.

—My personal experience with peroxide of hydrogen confirms entirely the statement of Dr. J. P. Parker, I have used exclusively Marchand's brand until lately, when I experimented with hydrozone. Then I gave up entirely the use of peroxide of hydrogen and use hydrozone on account of its strength, which cannot be compared with any other brand, even Marchand's. I must say that the results which I obtained with hydrozone are most gratifying.

—Ed. T. & R.

Wayside Notes.

By E. B. Sangree, M. D., Philadelphia.

In looking back over one's life probably the saddest reflection is for the time wasted, and the next saddest is over the time we really did work, but worked so badly that it was just about as well as wasted. The country schools that most of us went to had such indescribably bad methods that the mere recollection of those I attended rouses my gorge. I think I was about 6 when I made my first attempt at writing, and proudly carried the blotted sheet with those strange-looking charac-

ters up to the teacher, expecting praise. This villain, a burly, red-headed, bucolic boor, roared with laughter and turned the paper about so that the rest of the school could enjoy it with him.

My later experiences were not so maddening, but what was worse, were deadening; everything was mechanical. Spontaneity, individuality was frowned down. The pupils were all to be as nearly alike as it was possible to force them.

In the matter of reading, for instance, in one of my schools, our positions in the class were supposed to mark our abilities as readers. When a pupil made a mistake he had to go to the foot. A mistake consisted in mispronouncing a word or passing a punctuation mark too rapidly. Now, I have long since learned that these works have little or nothing to do with reading or expression, but all were commanded to pause and count one at a comma, two at a semicolon, three at a colon and five when a period was reached. And in order to avoid any mispronunciation or slurring of a word, our reading became less expressive than the "mama" of a wax doll baby.

I was moved to these reflections by a study I recently took up, Rosenthal's method of studying German. Dr. Rosenthal is the author of the Meisterschaft system, which was so famous, but this method is much better than that, and so incomparably superior to any other method of studying a language that I look on the greater portion of the time I spent at college over Greek, Latin and German as practically wasted. I am inclined to think that if I had been blessed with a method like this when studying Latin the time I devoted would have been sufficient to enable me to speak it. I don't know that this would have done me any good; it is a lonesome language, but I might have talked secrets to myself in it. The peculiarity of this method of learning German is that it is agreeable, almost fascinating.

Instead of being work to take up the book, it is a pleasure, and when study is a delight then we learn.

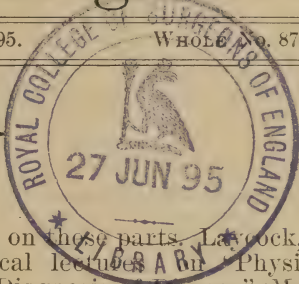
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THE NEUROTIC ELEMENT IN PULMONARY CONSUMPTION*

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That disorder of the nervous system plays a prominent part in the production of pulmonary consumption I have long been convinced, and in the various papers which I have written on this subject during the last seven or eight years I have made an effort to show the data on which this theory rests, and in response to the kind invitation of your secretary I appear before you to-day for the purpose of calling further attention to this interesting subject.

I am by no means the first advocate of the nervous theory of pulmonary consumption. As far back as 1842 Cheneau (*"De l'Influence de la Hautieme Paire dans la Production de la Phthisie,"* Paris, 1842) attributed this disease directly to disorder of the pneumogastric nerves, and indirectly to an abnormal condition of the central nervous system. In 1850 Dr. J. C. Holland defined pulmonary consumption as a disordered condition of the nervous system. Dr. Copland regarded tuberculosis and scrofula as being dependent on abnormal conditions of the nervous system, and believed that the accompanying disturbances of digestion, assimilation, circulation and even the local determination of these diseases are traceable to the state of the nervous

influence on these parts. Laëcocq, in his clinical lectures on "Physiological Diagnosis of Disease" (*Medical Times and Gazette*, 1862, p. 205) says that "defective pneumogastric innervation consequent upon a loss of cerebro spinal power is a very common predisposing and exciting cause of phthisis." Dr. Clifford Allbutt, in discussing the pathology of a variety of phthisis, states (*Medical Times and Gazette*, Vol. II, p. 613) "The more, however, I study the relations of the disease, the more I am satisfied that the lung mischief is also a neurosis—by which I mean, that the lesion is one not originating in the local tissues, but in the nervous system." Dr. Clouston, in his recent work "*The Neuroses of Development*" says (p. 92) that "facts seem to show that if tuberculosis cannot itself be called a neurosis it is in most cases dependent for its existence on a trophic neurosis, or bears the closest affinity to it."

From this it will be seen that this subject has interested some of the most prominent minds in the medical profession during the last 50 years. Indeed, when the richness and fertility of this field of study is surveyed, one is astonished to find how completely it has fallen into abeyance at the present time. It is practically forgotten, yet I believe that a full and thorough examination of its premises will give us proof of the most convincing character that it is the only key to solve the complex etiology of the disease under consideration.

At the very outset I would lay down the proposition that any agent or influence which has the power of disordering or interfering with the integrity of the respiratory

*Read before Section on Neurology and Medical Jurisprudence of the American Medical Association, at its meeting in Baltimore, May 7, 1895.

nerves in particular, or with the nervous system in general, also has the power of producing pulmonary consumption and other forms of lung disease. Thus in a recent canvass of the literature of this subject, I found the records of over a hundred cases of phthisis in which the pneumogastric nerves, or the respiratory centres, were compressed or injured or diseased in connection with syphilis, alcoholism, diphtheria, measles, diabetes, multiple neuritis, locomotor ataxia, bulbar paralysis, tumor of the pons and medulla oblongata, etc.

Phthisis follows in the wake of many nerve poisons. Mercurial tremor and paralysis are well known, but the investigation of Kussmaul develops the fact that the majority of those who suffer from mercurial intoxication, as looking-glass gilders, mercury miners, etc., are very liable to do, also fall victims to pulmonary consumption. Even the vitality of the offspring of those who suffer from mercury intoxication is vitiated, for it is said that scrofula, rickets and pulmonary consumption are exceedingly prevalent in the children of those who are engaged in mercury manufacture; and that it induces abortion and still-births among female employees.

Dr. Baumbler cites an interesting instance of mercurial intoxication in a family. Male, 69 years old, became a gilder when 39 years old and worked at it for 25 years, when he was compelled to seek other employment on account of serious mercurial poisoning. He was well and worked for 12 years, when he became salivated, suffered from stuttering, tremor, loss of memory, shedding of teeth, etc. He was married three times and all his wives followed the occupation of gilding. From the first union there were four children, one of whom died of gangrene of both feet, and the other three and the mother died of consumption. From the second union there were two children who, with their mother, died of consumption. From the third union all the children who were born before the mother was employed in gilding were well; while one who was born after this period was a weakling and died of cause

not given, but the mother died of consumption.

Lead is another metal which has the power of deteriorating the nervous system and of provoking pulmonary phthisis. Statistics show that this disease is from two to three times more prevalent among lead workers in Wales than it is among farmers living in the same locality, or among the general population of England and Wales.

Among the agents which are most potent in the production of phthisis, I would place the abuse of alcohol; and I would call the attention of those to this subject who are directly engaged in the study of inebriety. I know that my friend Dr. Crothers has already made some valuable contributions to this question, and I hope to hear of his further experience in this direction to-day. It is well known that this agent exerts a poisonous influence on the nervous system and especially on the peripheral nerves. Very frequently the nerves do not show any marked changes, but on closer examination evidence of parenchymatous degeneration with more or less interstitial neuritis is discovered, suppression of the catamenia in women, paralysis of respiration and of deglutition and disease of the vagi and of the lungs are also observed to be of common occurrence.

Syphilis is another nerve poison which is often the unsuspected cause of pulmonary disease—the typical pathological changes of which are an abundance of interstitial connective tissue proliferation, per-bronchial induration, diffuse thickening of the lobular parenchyma, syphilitic gummata and nodular induration or broncho pneumonia. The poison seems to attack the cranial in preference to the peripheral nerves. That the vagi are frequently implicated is shown by a number of cases which I collected.

Whooping cough is pre-eminently a specific spasmodic affection of the respiratory nerves. Hufeland, Hoffmann, Wendt, Walshe and Puldame ascribe its principal lesion to irritation of the pneumogastric nerve.

The pulmonary changes of whooping cough are interesting because they show the direct relationship between the disease of a nerve and that of the organ which it supplies. In all severe cases there is congestion of the pharyngeal, laryngeal and bronchial mucous membrane and of the lungs, together with dyspnea and feebleness of the respiratory sounds. There may also be a shade of dullness in some parts of the lungs. Epistaxis, hemoptysis, emphysema, chronic bronchitis, broncho-pneumonia and consumption are frequent complications, especially in the offspring of those who bear a history of chest disease.

Whatever the precise etiology of influenza may be, it is essentially a disease of the nervous system. Its morbid anatomy is principally seen in the meninges of the brain, spinal cord and peripheral nerves. Pulmonary edema, broncho-pneumonia, capillary bronchitis and pleurisy are among its common sequela. The pulmonary disease was believed by Graves to be due to paralysis of the vagi, and Walshe says this poison seems to exert a special influence on the pneumogastric nerve. Cerebro-spinal meningitis—an affection which chiefly involves the medulla oblongata and its immediate connections—is nearly always associated with pulmonary derangement. Then there is another group of diseases—the most prominent of which are beri-beri, pellagra, diabetes and leprosy—in which disease of the nervous system and disease of the pulmonary organ play a prominent role.

Epilepsy is also a disease in which the medulla oblongata is involved, and it is in the latter area that we will have to seek an explanation for the ultimate and long-recognized association between this disease and pulmonary disease. Echeverria in his work "Epilepsy" states (p. 313) "I have most closely investigated the relation of pulmonary tuberculosis and epilepsy, and undoubtedly the genesis of tubercles in the lungs is favored by the lesion in the medulla oblongata proper to epilepsy. I have traced the pulmonary trouble from its inception and feel convinced that

the association is more than a casual coincidence of both morbid conditions." Besides Echeverria, Van der Kolk, Jobert de Lambelle, Stuart Cooper and Rostan reported a number of cases of epilepsy associated with pulmonary disease in which the pons varoli, medulla oblongata and vagi were disordered.

Asthma is a spasmodic affection of the pneumogastric nerve and it is therefore of great interest in this connection to find whether this disorder develops into more serious lung disease or not. Asthmatics are generally supposed to be long-lived, but I do not believe there is much clinical evidence to support this belief. Of course there are some exceptional cases which undergo spontaneous cure in the later years of life, but in the majority of these sufferers the attacks incline to become continuous and it is to these my remarks refer. I believe that the tendency in such is a termination in pulmonary consumption. In support of this Fuller ("Diseases of the Chest") states that, in spite of the belief that asthma and pulmonary consumption are antagonistic, many asthmatics die of the latter disease. Williams ("Pulmonary Consumption") shows that in 385 cases of phthisis seven began with asthma, and states that the tendency of asthmatic parents to have phthisical children is hardly sufficiently recognized. James ("Pulmonary Phthisis") asserts that asthma and whooping cough are likely to predispose to or terminate in phthisis.

Hysteria implicates the respiratory organs in the form of accelerated breathing, dyspnea, aphonia, laryngeal and pharyngeal paralysis, etc., and has an innate tendency to develop into pulmonary disease either in the individual or her offspring. Professor Grasset ("Brain," vols. 6 and 7) found that among the patients, brothers and sisters, grandparents and uncles and aunts of 44 hysterical patients, there were 60 who died or suffered from phthisis.

Most all of these interesting cases furthermore demonstrate that phthisis may follow, or be followed, alternate with, or evolve from hysteria and other nervous disorders in the

same individual. Thus in cases 2, 26, 27, 30, 42 and 43 phthisis followed hysteria; in case 4, bronchitis followed catalepsy; and in case 17, epilepsy preceded phthisis. In case 28 there was alternation between hysteria, phthisis and epilepsy; in case 29 whooping cough and hysteria preceded phthisis; in case 31 phthisis existed first, this was displaced by hysteria, after which the patient suffered from sciatica, then from boils, and in the end recovered altogether. In cases 32 and 33 there was alternation between phthisis and hysteria, and final recovery from both diseases. In case 34 the patient became phthisical, and then suffered from hysteria, during which time the phthisis improved, and in the end she became paraplegic. In case 35 hysteria came first and then phthisis, after which the hysteria abated and the phthisis progressed. In the end the patient improved. In case 36 the patient suffered from phthisis and then became hysterical. She recovered from phthisis, but remained hysterical. Case 37 had phthisis first, then hysteria, after which the phthisis improved and disappeared, but the hysteria continued. Case 38 was phthisical first, then became a somnambulist, after which he recovered from phthisis. Patient 39 had pneumonia, then paraplegia, then phthisis and finally hysteria. Recovered from phthisis. In case 40 there was phthisis, then hysteria and hemiplegia, after which phthisis abated. In case 41 bronchitis appeared first, then convulsions, then phthisis and finally hysteria. Patient improved in the end. In case 44 hysteria was entirely displaced by phthisis.

Idiocy has a powerful bearing on this subject. Thus in 2380 cases of idiocy and imbecility which were admitted into the Royal Albert and Darenth Asylums in England (see Tuke's "Dictionary of Psychological Medicine," Vol. I. p. 664) it was shown that a family history of consumption existed in 674 of the inmates, or in 28.31 per cent. Dr. Langdon Down, physician to the Earlswood Asylum for idiots states ("Mental Affections of Childhood and Youth," p. 221) that the statistics of

London show that the deaths from phthisis constitute 115 per 1000 of the general mortality. His statistics at Earlswood indicate that phthisis was the cause of death in 398 per 1000 of the general mortality. His last hundred post-mortem records show that 62 were phthisical, in some of which cases there was no record of disease in the family, and he believes that in these cases phthisis was the sequence of idiocy. "Defective innervation, in all probability, led to malnutrition and predisposed to a tubercular condition." Dr. Down also contributes the histories of 20 families, each of which was burdened with idiocy, and among the parents, sisters, brothers, grandparents, uncles and aunts of which there were 35 who suffered from consumption.

The late Dr. Isaac N. Kerlin, superintendent of the Pennsylvania Institute for Feeble-minded Children, in an essay (Tran. Penna. State Med. Society, 1880, Part I, p. 161) states that if the tables which he presented in this paper were prepared by a special advocate to prove that consumption is the main factor in the generation of idiocy the effect could not be more startling; but "as they are the result of careful inquiry, without any theory to prove or disprove, I ask for them your respectful judgment." In the table to which he refers he gives the histories of 100 families in each of which there existed a case of idiocy, and this shows that there were 145 members of these families, only including parents, sisters, brothers and grandparents, who were afflicted with pulmonary consumption. In view of the fact that only about 17 per cent. of the general population die of pulmonary consumption this death rate is simply enormous. It means that the mortality from this disease is from eight to ten times greater among this unfortunate class than it is among the ordinary population.

Moreover, no one is surprised to find that insanity and epilepsy create a special liability to idiocy in the offspring, but it is certainly very startling, especially in the light of its supposed bacillary origin, that

consumption is more powerful in this respect than any other cause which is known to lead to this disease. Thus the statistics of the Royal Albert and Darenth Asylums, already alluded to, show that among the hereditary causes of 2380 cases of idiocy and imbecility consumption ranks the highest, having a percentage of 28.31, while insanity, epilepsy and alcoholism have a percentage of 16.47, 8.69 and 16.38 respectively.

Dr. Down, in the work already referred to, makes the following pertinent reflections concerning the relationship which exists between phthisis and disorder of the nervous system: "It appears to me that tuberculosis must be accepted as one important cause of idiocy; that it impresses special characters thereon while imparting a strong family likeness to the subjects of this class. It is no less clear to me that idiocy of a non-tubercular origin leads to tuberculosis. Whether this arises through the influence of the pneumogastric nerve, mal-assimilation of food, or defective innervation, it cannot but be regarded that the connection between these two maladies is by no means accidental, and that a due appreciation of this relation is necessary to those who would treat effectively congenital mental lesions.

The clinical association between insanity and pulmonary consumption has been noticed by many authors, among whom are Von der Kolk, Esquirol, Georget, Burrows, Ellis, McKinnon, Clouston, Boyd, Savage, Norman, Tuke, Laennec and others. Mandsley says ("Pathology of Mind," p. 113): "Perhaps I might set it down as a true generalization that the morbid neurosis, when it is active and gets distinct morbid expression, may manifest itself in four ways: (a) In disorder of sensation—for example, paroxysmal neuralgia; (b) in disorder of motion—for example, epilepsy; (c) in disorder of thought, feeling and will—mental derangement; (d) in disorder of nutrition—whereof diabetes is the earlier and phthisis is the later stage." Doctor Blandford states ("Insanity and its Treatment," p. 56): "I have found, however, that

phthisis and insanity do frequently co-exist in the same family." Doctor Stearns says (American Journal of Insanity, 1888, p. 87): "We often see a consumptive having a child which instead of developing consumption develops insanity, and vice versa, an insane person may have children of a phthisical tendency." Doctor Mosher relates an interesting case (Medical Record, 1895, p. 399): Female, aged 16, was admitted September 25, 1893. Said to have been insane for eight years, and her attacks were of epileptiform nature, characterized by sudden outbreaks of violence, and probably associated with unconsciousness. Heredity was the assigned cause, eight paternal great uncles and great aunts had died of phthisis, and her paternal grandfather was epileptic in youth and neurotic. During her residence of about six months she had intractable bronchitis and laryngitis with aphonia. Clouston, in his "Neuroses of Development," makes the observation (p. 91) that the death-rate from phthisis among the insane is four times higher than among the general population, and that both diseases are very common in different members of the same family, and that heredity towards phthisis may determine insanity and vice versa. The same authority also remarks ("Lectures on Mental Diseases," p. 461) the form of insanity which is commonly associated with phthisis is monomania of suspicion and melancholia. Nearly all pure cases of this kind sooner or later die from phthisis. The most marked cases of phthisical insanity are those with a strong hereditary tendency to both insanity and phthisis or to the neuroses. It is surprising how often both diseases occur in different members of the same family. * * * The constitutional weakness which tends to end in insanity is akin to that which tends to end in phthisis (p. 468). Schroeder Van der Kolk states (Sydenham. Publ. Vol. xi, p. 170) that phthisis and insanity frequently co-exist, or alternate with one another. We often see phthisis occurring in families, some members of which are affected. Doctor Busi, who collected his statistics at the

asylum for the insane at Basle, makes the interesting observation (*Neurology Centralblatt*, 1887, p. 282) that in many cases we must regard tuberculosis and insanity as an expression of the same constitutional weakness. In 50 per cent. of his insanity cases there was tubercular heredity; in 47.2 per cent. there was neuropathic heredity, and in 20 per cent. there was a mixture of the two. On account of the frequency with which both diseases exist in the same families he believes that there is an internal relationship between the tuberculous and psychopathic constitution.

Dr. Bianchi describes a pneumonia (*Neurolog. Centralblatt*, 1890, p. 249) which frequently occurs in paralytics, and which differs clinically and anatomically from croupous pneumonia. The temperature is usually low, cough and expectoration are sometimes absent, the respiratory movements are superficial, weak and slow, and the affected lung usually remains in a hepatized condition. Frequently there exist larger or smaller gangrenous foci, and nearly always, if the case is of long standing, a puriform infiltration of the alveoli and bronchi. All these manifestations simulate those of pneumonia which the author produced in rabbits and dogs by section and compression of the vagi. In a number of paralytics who died of pneumonia he was able to trace a primary degenerative atrophy of the vagi, and hence he believes that these pneumonias are dependent on vagus degeneration. He does not believe with Traube and Frey that this pneumonia is engendered by the swallowing of food. (*Shluck-pneumonie*).

This subject is one of vast proportions and if I had time sufficient I might inquire whether the symptomatic and the therapeutic evidence is not equally as favorable to the neurotic theory of phthisis as that is which comes from the pathological side of this question. Do not the weakness, the easy fatigue, the restless sleep, the extreme nervousness which is present in many cases, the dyspnoea, the hoarseness and

aphonia, the thoracic pain, etc., indicate that the principal nature of phthisis is one of nervous exhaustion? And therapeutically is it not true that we get the best results from those measures and agents which prove to be the most efficient in the treatment of nervous diseases? and are not these rest, nutritious food, strychnine, electricity, hypophosphites, cod-liver oil, phenacetin, capsicum, quinine and remedies which appeal to and influence the nervous system?

THE TREATMENT OF ACUTE DYSENTERY.*

BY T. E. SCHOOLAR, M. D.,
Centreville, Ala.

As I have had only a limited time in which to prepare a paper, I will make only a few remarks on the treatment of acute dysentery, with the hope that I will excite some interest in our meetings, and of the possibility of what I have to say upon the subject being of some benefit to some of you.

First, I will refer briefly to a few of the older remedies or measures used for the control of this sometimes annoying and dangerous disease—amazing to the physician and often fatal to the patient.

Only a few years ago it was thought necessary in the treatment of this, as well as most other diseases, to use the lancet, and its use was resorted to in nearly every case, and in every stage, though one of the more progressive physicians said some 50 years ago that vivisection was not to be dispensed with, but it was very necessary that the operation should be performed in the early stages, as the disease itself lowered the vitality so greatly in so short a time that he thought there was more danger than good to be derived from the loss of blood. But a great many bleed their patients at any time, and even many times during the same attack. With such practice I don't think many physicians of to-day will agree.

* Read before the Bibb County Medical Society, April 2, 1895.

Next to the lancet came mercury, usually in the form of calomel, and this has been, and is still, used extensively by a great many, or I might say a majority use it up to the present day. Perhaps it is of some good in some complicated cases, but after a thorough trial I am convinced that there is little good to be obtained by its administration in a typical case of dysentery, and have thought I could see that the symptoms were aggravated by its use, though I admit that I have never used it, as directed by older writers, until the "mouth was touched." Another remedy that has been used perhaps more than any other, and one that is thought by many to approach near a specific is ipecacuanha. During a severe epidemic two years ago I began, and continued its use for some time, with the impression that if this disease could not be controlled by its use it was almost useless to try any other treatment. I used it in every way I could find any others had used it with any benefit, but, after repeated trials, I abandoned it as being useless. In the same epidemic I watched it used by several older physicians than myself, and always with the same result. Some authorities claim it is without effect in some epidemics, but in a majority of epidemics it is without an equal. This one in which I used it was possibly one of the epidemics referred to as being without effect. I was so entirely unsuccessful in its use in this epidemic my faith in its use will have to be strengthened considerably to rely upon it in any case of dysentery. Castor oil has been used to some extent, and perhaps with benefit, but I have not used it sufficiently to become wedded to its use.

Next in the list I will take the neutral salts, the most important of which is the sulphate of magnesia, which has for many years been used with more or less success. From its depleting action and sedative and astringent after-effect upon the intestinal canal, I am lead to believe that it is without an equal with which to begin the treatment of this disease. I have found under its use,

combined with sulphuric acid, preferably the aromatic sulphuric acid, and a few drops of *ol. mentha piperita*, if much nausea, or "weak stomach," the severe hypogastric pain will nearly always be to a great extent, and often entirely, relieved. In a majority of the cases the amount of blood in the discharges from the bowel will be lessened, and, in a great many instances, stopped altogether. I also think at any time during the treatment, if something is desired to unload the bowel, there is none of the purgatives any better than the sulphate of magnesia.

I next come to the use of opium, and, perhaps, the most important of all. It is a drug that has long been recognized as one that cannot easily be dispensed with in the treatment of this disease. It has always been known that an inflamed part should be at perfect rest, if possible, and I have found no other way of keeping bowel at rest better than by the use of this drug. I prefer its use in the shape of sulphate of morphine, hypodermically, and combined with atropia sulphate. If I could be with patient at all times I would use it always hypodermically. From the action of atropia on the mucous membranes I am a little partial to its use, and often found decided benefit by keeping patient a little under its influence during the entire treatment. By the use of these two remedies you can keep comparative control over the number of passages from bowel, and they also help greatly to support the patient. If by using this treatment I fail to abort the attack in the first forty-eight hours, in addition to the morphine and atropine, I resort to astringents, preferably the vegetable astringents, usually *F. E. Hematoxylon*, and, from the good results obtained from sulphuric acid upon ulcers, and from its hemostatic, antiseptic and astringent action I almost always combine it with the *F. E. Hematoxylon*. I also use with these the *camp. tr. opium*, if it is so I cannot be with the patient when necessary to give opium. To disguise the taste, and as a stomachic, I add *syr. zingiber*.

I do not like the use of hot applica-

tions, though they may be grateful to the patient; it seems to me to be a bad plan to cause greater pelvic congestion by their use when we can by careful administration of opium obtain the same, or better, result. As to the use of injections, I found none better than the use of the white of eggs. I think it better to use it after thoroughly cleansing the rectum with a solution of hydrogen dioxide. In the few cases I have tried the egg enema it arrested the hemorrhage promptly, and seldom found it necessary to use oftener than once a day, and for more than three or four days.

During the entire course of the disease I am always very careful to have them take a light and nourishing diet; something that will leave as little waste matter as possible.

I think it very necessary that the patient should be kept in bed until convalescence is fully established.

It will often, but not in all cases, become necessary to use some stimulant to sustain their strength, especially in old persons.

In the way of prophylaxis it is well to thoroughly disinfect all discharges from bowel of patient and keep body of patient and clothing as thoroughly clean as possible.

PLEURISY WITH EFFUSION CURED WITHOUT OPERA- TING.

Bosch reports a case of a little girl of 9 who entered the hospital with all the symptoms of right-sided pleurisy; the left side measured 27.5 ctm., the right 28.7. The swelling extended to the third rib; respiration 46; temperature 38.1 degrees C. Before resorting to thoracentesis the author determined to try medicinal agents and, if these failed, to operate. Treatment—milk diet for eight days, canthardial collodion as a revulsant, citrate of magnesia and calomel as purgatives, digitalis, strophanthus and nitrate of potash as diuretics. Under this treatment the effusion rapidly diminished and the patient left the hospital after a month's time completely recovered.—Journal A. M. A.

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THE TREATMENT OF UTERINE FIBROIDS.

Perhaps in the whole domain of surgery there has been no subject which has been more exhaustively considered, and none which, from a therapeutic standpoint, has undergone a more radical revolution than that of uterine neoplasms.

Something more than 20 years ago, when Battey advised castration as a measure of treatment, the conservatives in the profession were startled; not so much because of the moral question involved as the boldness and danger of the measure; but, latterly, surgeons proceed to enucleate those growths with as much indifference as they would perform an amputation.

If we were to be influenced by the reports of some operators and were content to follow their cases no further than the operating table, then we could come to no other conclusion, that that the treatment of these

growths had reached the acme of perfection.

In all truth, however, it must be confessed that some of the statistics which are presented to us are not only misleading but positively false. One of the most noted and brilliant in the field of vaginal hysterectomy has been branded by his own countrymen as a man without honor or principle; hence, wholly unworthy of belief.

Let us for a moment examine into a few features of the question, that we may not be deluded into the fatal error of advising radical measures prematurely.

Uterine fibroids when of small volume and painless, in no manner impair the general health. As a rule, after the menopause they undergo retrograde, atrophic changes.

It is only when they attain great volume or unduly press on the adjacent viscera that the question of treatment rises. And here, we are at two cross-roads—the one leading the way by constitutional, cautious, local treatment, and the other the more radical and alluring, to surgical intervention. Very much may be accomplished in the therapy of these cases by specific medication, massage, electricity, interstitial injections and special alimentation.

There are some cases, though, which resist all palliative methods, and the question of operation is finally forced on us. Here the question at once arises, By what route will we attempt the displacement of these tumors, by the abdomen or the vagina? If our object only, was to enucleate and select that which gives the least mortality, then we would enter by the vagina. But the sequelae after this line of attack are often of the most lamentable description. The ureter is often caught up and opened, fecal and vesical fistula frequently follow, the support of the vaginal vault by the removal of the uterus is gone, and, there is great danger of prolapse and hernia, down through the vulva.

Small tumors, capable of no harm at all, may be detached and drawn through the outlet with about as much ease as we would extract a

tooth; but the uterus must come with it, and our woman is forever unsexed. This is most certainly not in consonance with humane surgery. To attack a tumor of mammoth proportions, which has extensive adhesions by this route, is to invite certain disaster and to fatally mangle and mutilate our patient.

When we enter above the pubes, through the abdominal wall, we must decide on the intra or extra-peritoneal treatment of the pedicle; but, many of these neoplasms are sessile and have no stalk; they are jammed hard and fast into the pelvis, and are adherent to everything they touch. The extra-peritoneal plan, when practicable, provides the greatest safeguards against hemorrhages or sepsis; nevertheless, it entails a long and painful convalescence; purulent infiltration often develops about the stump, and after healing a painful dragging on the bladder may follow, or a hernia may make its way through the opening.

The ideal method, is the intra-peritoneal, though its mortality is the largest. But, let no one undertake its performance who is not well versed in abdominal surgery.

In a large number of cases where the tumor is only subperitoneal, simple decortication and enucleation are all that are required; we leave our patient a whole woman, her ovaries and uterus are intact and we will have no reason to reproach ourselves for a mutilation.

THE RELATION OF MEDICINE TO CYCLING.

In the Medical Chronicle for April Dr T. N. Kelynack discusses the relation of medicine to cycling. In health the use of the wheel tells most directly on the heart, producing marked quickening of the pulse, which may continue as long as the cyclist is riding. Few attempts have hitherto been made to study the physical development of persons who have been using the bicycle properly for years. Dr. G. M. Hammond, of New York, who has examined a

number of cyclists, found in 14 amateurs who had ridden from five to 13 years, traveling from 5000 to 27,000 miles, simple cardiac hypertrophy without dilatation and a breathing capacity above the average. A careful examination of 14 celebrated professional bicyclists failed to show any deformity of the spinal column. All had excessive hypertrophy of the thigh and abdominal muscles, cardiac hypertrophy without dilatation, and, except in two instances, a lung capacity above the average. Cyclists, however, are apt to acquire the bad habit of mouth breathing. In disease the use of the cycle is not necessarily to be proscribed. In some cases of cardiac dilatation slight valvular involvement, and degeneration of the heart muscle, carefully supervised riding on level surfaces may be very beneficial. Varicose veins may also sometimes be relieved by properly regulated cycling. In certain neurotic conditions, especially neurasthenia and hysteria, cycling may be productive of benefit, and it is frequently useful in the treatment of insomnia. Gynecologists have found cycling advantageous in relieving local pelvic congestion. Carefully regulated cycling may be advantageous in certain affections of the respiratory organs, such as latent phthisis. A cautious and restricted use of the cycle has also proved serviceable in cases of functional dyspepsia and constipation, gout, diabetes and general anemia. Dr. Kelynack gives an impartial summary of all the evidence that has so far been collected relative to the evil effects of cycling. Each case must be dealt with individually, but as a general rule the following conditions may be looked upon as making the exercise inadvisable. Arteriosclerosis, tuberculosis, emphysema, extensive valvular disease, asthma, affections of the abdomen and pelvis, obesity, epilepsy and chronic affections of the joints and muscles. Fast and long-distance riding, especially in adolescents, is to be condemned. Straining to climb hills or to meet head winds is injurious. Light, judiciously-selected meals

should be taken at frequent intervals. The use of alcohol, meat extracts and such stimulants as coca is to be prohibited. Women should not ride during menstruation. The clothing should be of wool and adapted to the easy and unrestrained movements of the rider. Dr. Kelynack's article presents one of the fairest statements of the case for and against cycling that we have seen, and gives full references to the literature of the subject. We commend it to the attention of all persons interested in cycling as well as to all members of the medical profession.

INTRAVENOUS INJECTION OF MERCURIALS.

Abadie (Sem. Med., April 27, 1895) demonstrated on two patients his method of administering mercurials by intravenous injection, before the French Society of Dermatology and Syphilography. The injection is made into a vein at the bend of the elbow, and a syringe made entirely of glass is used. The mercurial he prefers is a 1 per cent. solution of cyanate of mercury in distilled water, of which the dose is 1 c.cm. These patients had received numerous injections without inconvenience or accident. In contrast with subcutaneous injections of mercurial salts, which are very painful, the intravenous method is absolutely painless.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

BLENNORRAGIC SALPINGITIS.

Raymond, in a study of specific salpingitis says—*Mercredi. Med., 15 Medici. Society Anatomie*—that the microscopical characters of this infection are quite uniform, as the supuration is in the tubes and not in the ovaries. In some the pavilion of the tube remains open, while in others both ends are closed by adhesive inflammation. This affection has two stages, the acute and subacute.

In either of them the gonococcus and the leucocyte are found in all the invaded tissues through cellular epithelia are scarce. The pus presents the same general aspects as that found in gonorrheal urethritis. It differs from salpingo-ovaritis in the absence of the leucocytes in the latter and besides in the streptococci. When this latter germ is found with gonorrheal salpingitis the inflammation is diffused and the extent of suppurative infiltration large.

TUMORS OF THE CAECUM.

Koerte reports nine cases of extirpation of the caecum. Four were for cancer, four for tuberculosis and one actinycosis, all recovering. This surgeon always makes a lateral implantation of the small intestine into the wall of the ascending colon. After the end of the intestine is invaginated into the large bowel two rows of suture are employed to fit and hold it. (Twenty-fourth German Congress of Surgeons).

THERAPEUTIQUE CHIRURGICALE—FISTULES URETERO-VAGINALES.

Dr. Taffier—*Mercredi. Med.*, No. 15, 169—in an extended contribution gives the etiology and treatment of these fistulas of the ureter requiring surgical relief.

He cites four cases which came under his own care and were all successfully treated. Since, he says, the vaginal route has been so generally selected for the removal of uterine fibroids and cancers of the uterus, these fistulae are becoming very common.

He is positively opposed to removing a kidney for this condition, and, by an elaborate description of operative methods shows how they may generally be readily closed, either by the abdominal or vaginal route. When the quantity of leakage is small and he believes that the ureter is wounded, but not torn completely across, he applies lunar caustic over the curunculous opening,

This hastens healing and complete cure.

When the rent is entirely through the duct our line of approach must be either through the peritoneal cavity from above or below.

In all cases he advises that the free end of the ureter be passed into and firmly retained in the bladder. In nearly all the cases which he had seen, the fistula was on the right side.

TREATMENT AND CURE OF TWO CASES OF CANCER BY SEROPATHY.

Richet and Hericourt have lately extended the application of seropathy to the treatment of malignant growths. On the 9th of February, '95, Richet removed an osteo-sarcoma from the lower limb. Some of the substance removed was filtered, after having been first ground firmly and mixed with water. This material was now injected into healthy animals, on which it produced little or no action. Eight days after they were inoculated they were freely bled and the serum separated from the coagulum. With this fluid injections into a patient suffering from adeno sarcoma were made, being repeated every third day. M. Terrier, who also employed the serum in a woman, says that from the date of the first injection the volume of the tumor began to diminish until after ten months it had so far disappeared that only a small patch of induration remained. This test proved that not only has the serum the property of arresting the progress of a regrowth, but completely and painlessly dissipating all its elements.

The patient on whom Richet employed it was 44 years old, with an epigastric tumor about the size of an orange, which had been diagnosed as a cancer of the stomach. In this case all surgical treatment had been regarded as too hazardous to warrant its trial. It was diagnosed as cancer. Treatment was begun by using this immunized serum, 4 centigrammes in each injection, until 64 centigrammes were employed. The

patient entered Hospital Pitie, March 27. By the middle of April there was a marked change for the better in the general condition. She had gained 4 kilogrammes in weight.

The tumor had so shrunk as to have quite disappeared. These facts, the authors believe, warrant the statement that in seropathy a cure for cancer has been secured.

SURGERY OF THE BILE DUCT.

Michaux practiced laparotomy for exploratory purpose in eight cases in which there was biliary obstruction of the ducts. In two he found calculi in the hepatic duct, two had calculi in the gall bladder, one had a cancer in the head of the pancreas. In eight, there was cancer of the liver. He dilates on the great difficulties in the way of exploring the bile passages in malignant disease, particularly the retro-duodenal or retro-pancreatic regions.

Correct diagnosis in these cases, he alleges, is extremely difficult. He believes that medical treatment should be always thoroughly tested before radical surgery is had recourse to. He prefers the median incision with a second at right angles if necessary. He is not a partisan to operations here "en deux temps."

Heycen—Le Mercredi Medical, No. 20, 237—presents to us an interesting observation on cancers of the stomach.

His patient was a young man of 24 years. The disease was a cause of the most agonizing pains and distress. Believing that these were adhesions of the viscera or an undue pressure which might possibly be relieved by an operation and a gastrostomy, this surgeon made a laparotomy, but the extent of cancerous infiltration was so great that he could do nothing. Now, the strange feature about the case was, that the young man enjoyed immediate and permanent relief after the abdominal section. His appetite and strength returned. He was now hopeful of recovery, when an uncontrollable diarrhea set in and carried him away.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

THE COLD BATH IN THE PNEUMONIA OF CHILDREN.

M. Comby calls attention to the excellent effects yielded by balneo-therapy in the pneumonia of quite young infants. Applied at a temperature of 25 or 20 degrees C., according to age and circumstances, the cold bath is most serviceable in reducing the temperature, restoring lost tone, and slowing the pulse and respiration. Chemical antithermic agents, such as antipyrin, quinine, etc., are generally useless, and may be dangerous. In his words, M. Comby gives cold baths to all his little pneumonic patients whose temperature exceeds 39 degrees C. (102.2 degrees F.), and whose hearts are not diseased. Quite recently he had an opportunity of noting the good effects of this treatment in a little boy affected with influenzal pneumonia of the right apex, uninfluenced by ordinary antithermic drugs. M. Comby adds that baths of 25 degrees C. are quite well supported by even very young infants. M. Sévestre states that the application of the above treatment determines the onset of the crisis on the fifth instead of the seventh day, and so materially shortens the duration of the disease. M. Rendu also characterizes the cold bath treatment as the best means of obtaining prompt defervescence in the pneumonia of adults. M. Siredey informs us that at the Aubervilliers fever hospital he has derived great advantage from the employment of cold baths in the treatment of bronchopneumonia consecutive to specific fevers, and M. LeGendre made a statement corroborative of their efficacy in all congestive complications of eruptive fevers. Professor Hayem says that at the Hospital St. Antoine the most fatal disease of all is pneumonia, and that eighteen out of twenty of these patients are "alcoholics." During the first two years, 1879-1880,

he lost 50 per cent. of these cases. He then instituted the cold bath treatment and the mortality fell to 27 or 28 per cent. For some time past this mortality has further diminished (to 8 or 10 per cent.), but this improvement he ascribes to a new special treatment he has devised for the benefit of these alcoholic patients. Employed in the creche attached to his wards, Professor Hayem finds the cold baths more powerful for good against pneumonia than when used for adults.—Lancet.

SUCCESSFUL TREATMENT OF PUERPERAL SEPTICEMIA WITH ANTISTREPTO- COCCIC SERUM.

Dr. Jacquot, of Creil, near Paris, reports an instance where Roger and Charrin's serum was successfully applied in combating the above-mentioned dangerous condition. After quinine and intra-uterine douching had been unsuccessfully tried, the temperature reaching 40.8 degrees C. (105.4 degrees F.), 30 c.c., of the serum were injected. In a few hours the temperature had descended to normal. Two more injections were given, and the woman appeared to have quite recovered. Three days later, however, the patient's mother fell ill with erysipelas of the face, and this seems to have determined in the accouchée (two days later still) rigor accompanied by a temperature of 104 degrees F. Three days after this relapse a fresh injection of the serum was practiced, the temperature falling quickly to normal. From this time forward recovery was uninterrupted. This case serves to illustrate the prompt antithermic action of the serum and the intimate connection existing between puerperal fever and erysipelas.—Lancet.

MICROBIC ASSOCIATION IN TUBERCULOSIS.

Maragliano (Clin. Mod., April 15, 1895) would explain the varying course of phthisis in different sub-

of his physicianship at that hospital jects by the absence or presence of micro-organisms other than the tubercle bacillus. For him the tubercle bacillus is responsible for the tubercle nodule solely, and for a certain diminished resistance of the tissues created by its proteins or its toxins, and so rendering them more susceptible to the attacks of other micro-organisms. It is to these latter that we owe the penumonic and caseous foci so frequently found in the course of phthisis. Unless other micro organisms come it may be that the tubercle bacillus may give rise to no symptoms during life, and occasionally one finds post-mortem tubercle nodules where there has been no suspicion of phthisis during life. Most of the secondary symptoms of phthisis—for example, fever, wasting, broncho-pneumonia—are, according to the author, due to the superposition of micro-organisms other than the tubercle bacillus; and it is just because the air of mountains and of the sea is so free from these organisms that it is so negatively beneficial to the phthisical. This conception of mixed infection in phthisis was broached by the author in 1891, and seems to throw light on the clinical course of pulmonary phthisis.

A NEW VARIETY OF THE BACILLUS ANTHRACIS.

Chauveau and Phisalia (Sem. Med., April 27, 1895), in experimenting on guinea-pigs with cultures of the bacillus anthracis, attenuated by the action of compressed oxygen, have obtained other cultures, disclosing a new variety of this microbe, which they name the bacillus anthracis claviformis because of its key-like or bell-clapper-like form. This organism is permanent and specific in its form, and physiologically is distinguished by its total want of virulence in all but very large doses. It also possesses only the feeblest immunizing power, and neither this nor the original virulence of the anthrax bacillus can be restored to it by the usual procedures.—Br. Med. Jour.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

"THE DOSE FOR IMMORTALITY."

Among the Chinese Panax quinquefolia, or ginseng, is given to ward off or remove fatigue, invigorate the feeble, restore exhausted animal power, to make the old young—in short, to render man immortal. It is found in the mountains of Shantung and Leotung, but now most of it is imported from this country.

Its very name, ginseng, signifies the wonder of the world, or the dose for immortality, and directions for gathering are upon the first two days of the second, fourth and eighth moons, when the stars are said to be propitious.

An investigation will prove the common belief that the aborigines were well versed in botanic medicine to be erroneous, as most of the plants used had no medicinal virtue, and were used because of their supposed resemblance to some part or organ of the body, or again, because the priest or physician had a dream to get this certain plant, and so it became fixed in the primitive materia medica. As before stated, none of these remedies were effective until some mysterious process had been performed and certain ceremonies were executed which had for their office the transference of power from the tutelary god to the plant. However, some remedies were used which were of great value, although all were subjected to the same ritualistic forms before using; yet a striking example of the union of both may be shown.—Johns Hopkins Bul.

CANNED HORSE.

The suggestion in the Journal of April 13, concerning the utilization as a food supply of the immense droves of wild horses in Oregon, Washington, Idaho and Montana, has developed the fact that some of the salmon canners on the Pacific coast had already turned their attention in that direction. One firm has put "canned horse" on the

San Francisco market where it has been served in restaurants. The local papers say the flesh resembles beef in appearance, and cannot be told from it by taste. "The grain of the flesh is fine, and dozens of people have sampled the canned horse, and are unanimous in pronouncing it good, though there was not one of them but confessed to a prejudice against the eating of horseflesh." Another firm has organized at Portland, Ore., for canning on a large scale; it has bought 6000 horses at from \$1 to \$5 apiece and is contracting for great numbers, expecting to supply a palatable, nutritious flesh-food at one-quarter to one-half the price of beef. It only remains for the learned lexicographers to put a name to it; "horseflesh" obviously will not answer; it is too suggestive.—Journal A. M. A.

TELEPHONES AND THUNDERSTORMS.

Do overhead telephone wires exercise a controlling influence on the electricity of the atmosphere? That the converse occurs is evidenced only too plainly by the disturbances in telephonic communication which result from the presence or proximity of a thunderstorm. More than one instance may be recalled of a telephone wire being struck by lightning, to the detriment of the instrument and to the discomfiture of the listener. But do overhead wires ward off lightning? We are indebted to the "Decorators' Gazette and Plumbers' and Gasfitters' Review" for the "fact" that the risk to buildings of being struck by lightning in places unprotected by overhead telephone wires is nearly five times greater than in places provided with a telephone system. An immunity of this kind cannot be considered improbable. It is to be remembered that an overhead telephone wire becomes in point of fact a lightning conductor, and in this capacity may act in two ways: 1. By equalizing differences of potential it may prevent the occurrence of the disruptive discharge; or (2) receiving a lightning charge it may carry the current

to earth. With reference to the first point there can be little doubt that overhead conductors, if connected to earth, do play an important part in the distribution of atmospheric electricity. Lord Kelvin, in a recent paper (read before the Philosophical Society of Glasgow), states that the difference of potential he obtained between the earth and an insulated burning match placed nine feet above the ground was 200 to 4000 volts. What, then, is the result of permanently connecting by a good conductor the earth and the atmosphere directly above it, a condition which exists in the case of single-wire telephone circuits? Such an arrangement must tend to equalize potential and prevent the accumulation of those charged masses which no doubt form the nucleus of the storm cloud. This equalization will continue to take place in all conditions of weather. But when a storm does occur it is obvious that if struck by lightning the wire carries the current to the point of greatest danger, viz., to the instrument and to anyone in its vicinity. Therefore, unless the strictest structural precautions be taken such a wire becomes a source of danger, rather than of safety. To obviate this danger every post or support for overhead wires ought to be fitted with a lightning guard, and every instrument, whether using the earth as a return or not, should be fitted with an efficient form of lightning arrester. Where the overhead wires are not connected to earth, as is the case with overhead "lighting mains" and "twin" telephone circuits, any equalizing effect upon potential difference is practically lost, and any circuit connected with overhead wires of this kind must be dangerous, inasmuch as such wires become lightning conductors in all but the saving device of an earth connection. For "lighting mains" it can scarcely be doubted that the underground system is in most respects the better: (1) For obvious reasons connected with the size of the cables; (2) for the electrical reason that, if carried overhead, no earth connection is allowable by the rules of the

Board of Trade. For telephones the adoption of the "twin wire" system seems to bring with it the advisability of placing the wires below the surface of the ground, inasmuch as this system does away with the earth return as part of the circuit. It therefore appears that from an electrical point of view there may be in overhead wires an element both of safety and of danger. The latter will certainly predominate, unless supports be protected with lightning guards and every instrument provided with an efficient "protector"—that is, with an unfailing means of carrying a strong current to earth without passing through the instrument. Is this secured in practice? Can it be secured with any certainty by even the best lightning arrester or earthing device of any description? So long as the coarse expedient of a connecting wire is necessary for the guidance of electrical energy, so long must this question of "wiring," with its safeties and its dangers, be one of great and growing interest. But it may be pointed out that if every house were fitted with an efficient form of lightning guards a greater immunity from lightning discharges would be secured than that which at present exists with the closest network of overhead telephone wires.—London Lancet.

THE TREATMENT OF UMBILICAL HERNIA IN CHILDREN.

Cahir (Rev. de Chir., April, 1895) lays down the following rules as to the treatment of umbilical hernia in infants and young subjects. Apart from certain exceptional conditions in children below the age of 18 months, whether of rich or poor parents, attempts should be made to cure the hernia by a firm pad and an abdominal bandage. In such cases a flat pad should always be preferred to a conical one. Children from 2 to 7 years, if belonging to well-to-do parents, and well cared for, should be treated in like manner; but if the parents be poor, hard-working, negligent or ignorant, it will be found useless to attempt any cure of

umbilical hernia by such simple means. There are no good grounds, the author states, for attributing to this treatment of umbilical hernia the subsequent protrusion of a hernia sac in the inguinal region. If any temporary affection of the respiratory organs, such as bronchitis, whooping cough, or laryngitis, should occur during the application of the pad and bandage, such treatment ought to be interrupted whilst the chest trouble lasts, and afterwards renewed and steadily maintained. Operative treatment by one of the numerous modern methods is indicated in the following cases: (1) When an umbilical hernia in an infant causes symptoms of strangulation, or is associated with persistent gastro-intestinal troubles which cannot be attributed to any other cause. (2) Also in young subjects from 2 to 7 years of age in whom like symptoms are caused by umbilical hernia. (3) In children from 2 to 7 years of age, suffering from umbilical hernia, who in consequence of defective means of retention or of careless treatment remain with the hernia in much the same condition after the use of pad and bandage continued for 12 or 18 months. (4) In children over 7 years of age suffering from unmanageable or irreducible hernia presenting a tendency to increase in size. (5) When the skin over the hernial swelling is ulcerated and inflamed. (6) When the existence of an umbilical hernia is likely to interfere with the patient's career in any special calling. (7) When the hernial ring is large. (8) When the patient is subject to stangulation or to inflammatory attacks. (9) When the hernia, by exciting pain and gastro-intestinal disturbances, seriously impairs the development of the young subject.

MAKING VACCINATION ODISIOUS

If it is true, as reported, that two physicians of the New York City Board of Health recently vaccinated 1000 children in nine hours, that is a fraction over 18 a minute, the following comment of the Bangor (Me.) Commercial is just and timely: "To say that vaccination could be proper-

ly performed at this reckless, break-neck rate is simply ridiculous. But possibly these eminent practitioners wanted to give the impression that vaccination is a humbug and did their work with that end in view.—
Journal A. M. A.

Miscellany.

STREET NOISES.

The essence of good government has been defined as "the greatest happiness for the greatest number," and it is surely time to reiterate the question whether something cannot be done to make life less unendurable for those who work with their heads and are compelled to live in great cities. We believe we are correct in saying that in no foreign town and in few other British towns is such license given to anyone to earn a living by annoying his fellow creatures as in London. From an early hour in the morning the air is thick with the raucous yell of men and boys selling race cards and half-penny news-sheets. Later in the day the torment is aggravated by piano organs, so-called bands and street singers, while at a late hour of the night it is quite common to be disturbed by hordes of ruffians with voices like fornhorns roaring out imaginary and highly spiced details of a murder which has never happened or some even more unsavory subject. The police, it appears, are powerless. News vendors cannot be interfered with if they move on, and they do move on—in a circle. Organs, we fancy, can only be moved from in front of the complainant's door, and as a piano organ is perfectly audible 200 yards away this remedy is useless. There is only one remedy, and that is to compel anyone who wishes to make a noise in the street for the purpose of getting money to pay a heavy license for the privilege of so doing. No one would object to the sale of papers if it were not accompanied by howls worthy of an eighteenth century madhouse. Rates and taxes rise with the utmost regu-

larity every year, and it is not too much to ask that something should be done to obviate a nuisance which gets yearly worse and worse. The ringing of church bells, which, except those of St. Paul's, are always out of tune, should on no account be allowed in London except for five minutes or so before service. Every one who goes to church knows perfectly well at what time to go, and those who do not go probably do not want to know. In the ages of faith the ringing of bells drove away devils, but the latter-day fiend who yells "Paiper" and grinds organs is proof against their power, and to ring bells is but to add one more unnecessary noise to the large number of necessary ones, which already exist. We have pointed out on several occasions that there is no legal right to ring or toll a bell except before morning and evening prayer or on the occasion of a funeral, and that the ringing of a bell previously to the celebration of the Holy Communion, which often now occurs in the early hours of the morning, is wholly illegal and unwarrantable. It is a great torture to many sick and weakly people.—Lancet.

BACTERIOLOGY OF GASTRIC FERMENTATIONS.

Kaufmann (Berl. klin. Woch., 1895, Nos. 6 and 7) says that different micro-organisms behave differently in the presence of free hydrochloric acid. The cholera bacillus is very susceptible, the typhoid bacillus less so, and the tubercle bacillus and anthrax much less so. Generally speaking the micro-organisms which split up carbo-hydrates are less susceptible than those which split up nitrogenous material, whereas those that cause lactic acid fermentation are the most resistant. The important part played by micro-organisms in the alimentary canal is not doubted, but it is also very desirable to know what micro-organisms normally inhabit the stomach. Hydrochloric acid combined with albuminous bodies has its antiseptic as well as its digestive powers diminished. When free hydrochloric acid only ap-

pears, as in nitrogenous feeding, four hours after digestion it can offer little hindrance to the growth of pathogenic and non-pathogenic micro-organisms. At present it is unexplained whether fermentation occurs at the height of normal digestion. The absence of fermentation, then, might be ascribed to the presence of the free acid. But fermentations are often absent when free hydrochloric acid is wanting, and are present when it exists in large quantities. In stagnation free hydrochloric acid cannot prevent fermentation. In all cases of disordered fermentation in the stomach containing much hydrochloric acid there has always been gastric dilatation. In one case fully investigated by the author a neurasthenic patient suffered from atony of the stomach, and a considerable increase in bacteria in the living state was observed in spite of an excess of free hydrochloric acid. Among other micro-organisms frequently found the bacillus subtilis is often present, but whether it acts as a fermentative agent cannot be stated at present. The author found in this and in another case a micro-organism very like the *B. coli communis*. This is curious, as this micro-organism cannot exist in gastric juice containing free hydrochloric acid. Perhaps it has some relation to fermentation. The chief interest of this case was the occurrence of fermentation at the height of digestion, in spite of free hydrochloric acid.

A PHILADELPHIA INCIDENT.

The Philadelphia Record is authority for the following case of dislocation of the inferior maxilla. The Record calls Dr. Pancoast "a considerable physician:" "A downtown woman, who justly bears the reputation of a common scold, recently became so enraged at some action of her inoffensive husband that in endeavoring to do justice to her feelings she threw her jaw out of place. Of course she was immediately silent and her husband, although he hurried with her to Dr. Pancoast's office, experienced a sensation he

had not known for years, for he berated his wife soundly and received no words in reply. Perceiving that the woman was impatient to give her husband a scolding Dr. Pancoast purposely allowed her to wait for half an hour, while he attended to others, and then, telling the husband to get out, he threw the jaw back in place. However, he placed a tight bandage under chin and advised her to keep it there for some time, in order to give the husband a much needed rest."—Journal A. M. A.

THE MEDICAL SOCIETY OF NEW JERSEY.

The next annual meeting of the Medical Society of New Jersey will be held in the Hotel Stockton, Cape May, Tuesday and Wednesday, June 25 and 26, 1895.

PROGRAMME.

Prayer by Rev. J. W. Cockins, Cape May; report of Committee on Credentials, secretary, chairman; calling roll; address of welcome by Mayor of Cape May; report of Committee on Arrangements, George E. Reading, M. D., chairman; reading of minutes (abstract) of last annual meeting; report of Committee on Business, H. R. Baldwin, M. D., chairman; election of permanent delegates; any business which requires early consideration may be introduced; report of Committee on Ethics and Judicial Business; report of treasurer, Dr. A. Mercer; report of corresponding secretary, Dr. E. L. B. Godfrey; report of Committee on Honorary Membership and Honorary Degree of Doctor of Medicine, Dr. H. G. Taylor, chairman; report of Standing Committee, H. W. Elmer, M. D., chairman. (Five minutes will be allowed each delegate for remarks upon the same); report of Committee on "Prevention of Blindness through Legislative Enactment," W. B. Johnson, M. D., chairman; report of Committee on "Bovine Tuberculosis," etc., J. W. Stickler, M. D., chairman; report of Committee on "Relation of Physician and Pharmacist," H. L. Coit, M. D., chairman; announcement of committees by the president; annual address by the president, O. H. Sproul, M. D., "Dis-

eases of Pregnancy and Parturition;" paper by J. W. Stickler, M. D., "Some Original Investigations Showing the Antagonisms between Morphine and Cocaine;" discussion, "Practice of Journal of American Medical Association in Advertising Secret Nostrums;" discussion upon subject presented at last annual meeting, "Comparative Advantages of Water Hot or Cold, versus, Germicidal Solutions in Modern Surgery." Dr. W. B. Johnson was appointed to take the leading part in the discussion. Report of delegates to and reception of delegates from corresponding societies; essay, third vice president, D. C. English, M. D., "Our State Medical Society, Its Past Success, Present Needs and Future Prosperity;" report of Committee on Treasurer's Accounts; acting upon amendments to by-laws proposed at last annual meeting; amendment to Section 12 of by-laws as follows: "The Committee on Nominations shall consist of one delegate from each district society represented, who shall be chosen by his own delegation and the vote of the delegate so chosen shall be counted in the sessions of the Nominating Committee as equal to as many votes as his district society has members, the membership of district societies to be determined by the amount of dues paid to the treasurer of the State society." Report of Committee on "Fellow's Prize Essay," J. G. Ryerson, M. D., chairman; investigation of by-laws and communications from district societies; reading of such papers as are approved by the Business Committee; reports of interesting cases; report of Nominating Committee; election of officers; miscellaneous business; adjournment.

OFFICERS.

President, O. H. Sproul, M. D., Flemington; first vice president, William Elmer, M. D., Trenton; second vice president, T. J. Smith, M. D., Bridgeton; third vice president, D. C. English, M. D., New Brunswick; corresponding secretary, E. L. B. Godfrey, M. D., Camden; recording secretary, William Pierson, M. D., Orange; treasurer, Archibald Mercer,

M. D., Newark; standing committee H. W. Elmer, M. D., Bridgeton; William H. Iszard, M. D., Camden; Henry Mitchell, M. D., Asbury Park.

AMERICAN MEDICAL PUBLISHERS.

This Association held its second annual meeting at the Eutaw House on the 6th and 7th of May, with the following in attendance:

Dr. J. C. Culbertson, Cincinnati, O.; Miss Dora Jones, St. Louis, Mo.; Dr. John C. Le Grand, Anniston, Ala.; Dr. C. F. Taylor, William B. Saunders, Philadelphia, Pa.; Miss Hackedorf, Toledo, O.; Dr. F. E. Stewart, Detroit, Mich.; J. MacDonald, Jr., Irving J. Benjamin, Dr. Ferdinand King, Dr. H. P. Fairchild, New York City; Dr. R. W. Lowe, Bridgeport, Conn.; Dr. W. C. Wile, Danbury, Conn.; Dr. H. M. Simmons, Dr. William B. Canfield, Baltimore, Md.; H. A. Mathie, Dr. A. H. Ohman-Dumesnil, Dr. I. N. Love, St. Louis, Mo.; Dr. Landon B. Edwards, Richmond, Va.; Dr. Hudson, Austin, Texas; Dr. William F. Bartlett, Philadelphia; Dr. T. D. Crothers, Hartford, Conn.; Dr. Gilbert I. Cullen, Cincinnati, O.; Dr. Henry S. Upson, Cleveland, O.; Dr. E. E. Holt, Portland, Me.; J. M. Grosvenor, Jr., Boston; Charles Wood Fassett, St. Joseph, Mo.

Nineteen new members were admitted and questions of the day affecting medical publishers were profitably discussed.

Beginning with July 1 a monthly bulletin will be issued for the benefit of members of the Association. It is to be edited by Drs. P. H. Fairchild, J. MacDonald, Jr., and Ferdinand King, New York City; Dr. J. C. Le Grand, of Anniston, Ala., and Charles Wood Fassett, of St. Joseph, Mo.

The secretary was authorized to issue in pocket form a revised list of medical advertisers.

Upon invitation the Association banqueted with the medical editors on Monday evening.

The officers re-elected were as follows: President, Dr. Landon B. Edwards, of Richmond, Va.; vice president, Dr. H. C. Culbertson, Cincin-

nati, O.; treasurer, J. MacDonald, Jr., New York City; secretary, Charles Wood Fassett, St. Joseph, Mo. Dr. J. C. Le Grand and Irving J. Benjamin were elected on the executive board.

THE STOMACH TEST IN MURDER TRIALS.

In the Boston Medical and Surgical Journal of February 28 Dr. Gustav Liebmann contributes a short paper on this subject. He stated that the object of this test is to ascertain, by the presence or absence of solid contents or by the intermediary stages of liquefaction of food found in the stomach, how far the process of digestion has advanced, giving thus a clue as to the time at which the death of the victim has taken place, provided the time of the last meal be known. In order to arrive at an exact, or at least approximately exact, conclusion, the first and imperative condition would be a uniformly established schedule of time in which the different phases of digestion should be completed. If there be such a physiological law, from which there is practically no deviation, we should place full reliance upon the test; but if there be, in healthy people even, numerous exceptions or deviations the test must of necessity be open to errors. Dr. Liebmann considers that this latter proposition is the true one. The different variations in the duration of the digestive process depend upon the following conditions: 1. The length of time necessary for the transformation of solids into chyme in healthy individuals varies a great deal according to the digestibility of the different foods. 2. The length of time necessary to expel the ingesta from the stomach into the duodenum in the healthy individual varies according to the quantities of food taken. Not only does it take a longer time for larger quantities to be impelled on, but the motor activity of the stomach walls is diminished by the greater distension produced by the larger amount of food present. Thus, pieces of meat are frequently found a day or longer after

ingestion. 3. The shorter or longer stay of food depends on the amount of acidity, which varies in different stomachs even within the border line of health. 4. Much variation even in health is caused by individuality, by presence or absence of pepsin, hydrochloric acid, psychical factors and emotions (fright, fear, grief, or the opposite, as joy or exaltation). We see, therefore, that owing to the many physiological variations, which do not permit of any reliable deductions even in the healthy, the forensic value of this test must be considerably impaired.

TRANSIENT CLUBBING OF FINGERS DURING EMPYEMA.

Schon (Ugeskrift for Laeger, No. 6, 1895), reports the following case: A girl, aged 10, presented symptoms of a localized pneumonia in the upper part of the lower lobe of the left lung, which later spread over the whole lung. As the disease did not progress in the orthodox manner and the temperature kept high an empyema was suspected. On the seventeenth day of illness there were physical signs of fluid, and pus was withdrawn by the aspirator. The following day the usual operation was performed, and the same evening the temperature was normal, and remained so throughout the illness. Some time after the operation the deformity of the fingers was noticed. This became very marked; the terminal phalanges were enlarged, both from side to side and in the dorso-volar direction; the nails were abnormally convex, but their color natural. The deformity quickly disappeared, and by the time the sinus had closed the patient's fingers were quite normal again. The author regrets his neglect to make a bacteriological examination of the pus evacuated from the pleura, as he thinks this affection must in some way be connected with pyogenic bacteria or their products. It has been noticed in connection with other suppurating processes, as, for instance, by Marfan in a case of pyelonephritis. The author has found only four similar cases previously published, two by Maigard.

TRANSFUSION OF BLOOD.

V. Ziemssen (Munch. med. Woch., April 2, 1895) maintains that the transfusion of non-defibrinated blood from arm to arm is a valuable therapeutic measure. The infusion of saline solution is most useful in cases of acute loss of blood threatening life, but the effect is fleeting. It is not always easy to say which of the two procedures is the better one. The weakness of the cardiac muscle with insufficient filling of the aorta, the amount of hemoglobin and red cells in the blood, furnish important indications. In hemorrhage due to wounds, childbirth, etc., the blood-forming organs are unimpaired, but this is not the case in progressive anemias due to internal causes. In malignant forms of anemia the regenerative power of the blood is lost, and therefore little can be expected from the infusion of saline solution. In cases of repeated hemorrhages in gastric ulcer, typhoid fever, abortion, infusion leaves much to be desired. The author then records a case of gastric ulcer with repeated hemorrhages. The hemoglobin stood at 50 per cent., and the red cells at nearly 2 1-4 millions. Owing to danger to life 1 litre of 0.6 per cent. saline solution was subcutaneously infused. This was followed by improvement, but the general condition again became threatening; 175 c.cm. of non-defibrinated blood was infused intravenously. From this time the patient steadily improved. She was subsequently treated by subcutaneous injections of sol. natrii arsenicosi (1 per cent.) with the best results. Without the infusion of blood the patient would, in the author's opinion, certainly have died. No immediate increase in the hemoglobin or red cells takes place, so that the author would attribute the good results to the stimulation of the blood-forming organs. The depression in the blood pressure, even for some time after the quantitative and qualitative improvement in the blood, is striking. It is doubtful whether it is desirable to wait much beyond 12 hours after the infusion of saline solution before having recourse to the transfusion of blood.—Br. Med. Jour.

The Times and Register.

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PHILADELPHIA, JUNE 22, 1895.

WHOLE No. 876.

Original.

MODERN SURGERY OF SEROUS CAVITIES.*

BY MERRILL RICKETTS, Ph. B.,
M. D., Cincinnati.

Medication of any kind being of but little value in causing exudation of any kind in any cavity to become absorbed, prompts me to deal with this subject strictly from a surgical point of view. I wish, however, to state that it is only in syphilitic effusion that we have any evidence that medication is beneficial.

With the aid of the exploring needle there should be no doubt as to the presence of any kind of fluid in any cavity, even when existing within the cranial or spinal column.

The fluid is generally sero-fibrinous containing foci, with or without blood or pus.

The pericardium usually does not contain these two elements.

Exudation of serous membranes are simple in their character and the lesion may be circumscribed or general.

An abnormal amount of fluid of any character, if allowed to remain in any cavity for any length of time, is accomplished or followed by unfavorable results.

Any serous membrane may slough as the result of prolonged distension. The pressure of a fluid in a cavity, especially upon the brain, heart and lungs, is sooner or later disastrous, and in tubercular subjects no hope can be given without a paracentesis.

Drainage of the ventricles, the arachnoid, pleural, pericardial, peritoneal and synovial cavities, is now an established surgical procedure.

While the brain has a most won-

derful amount of tolerance, it suffers more than all other tissues as the result of pressure because of its being encased in bone.

This is the greatest reason for immediate interference and the evacuation of any excessive amount of fluid that may accumulate around or within it, as the result of either acute or chronic meningitis.

The results are the same whether the pressure is from within or upon the surface of the brain.

Chronic meningitis—The causes are:

1. Acute meningitis.
2. Tumors.
3. Exudation into the ventricles.

We find the disease confined principally to the lateral ventricles, although the third or fourth may be involved.

The amount of fluid may be as much as 34 ounces with a specific gravity of 1004 to 1006, and containing a slight amount of albumen, with the appearance of colorless serum.

The insertion of a canula into the ventricles, the outer end being just beneath the integument which has healed primarily, and thus allowing an opportunity for the fluid from the ventricles to become absorbed subcutaneously, was an ingenious method, and while not followed by recovery, shows something of new formed ideas.

The bulging of the scalp increased with the amount of the fluid secreted, it becoming necessary in a few days to remove the canula, and thus allow the fluid to escape.

Another introduced a small canula into the ventricle, so that by means of a small covering over the opening the fluid could be allowed to escape at any particular time.

*Read at annual meeting of National Association of Railway Surgeons, Chicago, May 2, 1895.

Constant drainage early in the course of the disease will, I am quite sure, be the means of solving this problem.

For surely the environments are more favorable at this time than when the ventricular walls have been allowed to become greatly distended.

In case of effusion into the ventricle the arachnoid cavity may or may not become involved—generally not.

Their association seems to be more assured in children of tubercular, syphilitic or alcoholic parents.

Abnormal adhesions, which are so disastrous to life, can, I believe, be avoided by means of free drainage.

Acute meningitis is one of four forms, viz.:

1. Simple.
2. Tubercular.
3. Purulent.
4. Hemorrhagic.

In speaking of meningitis I wish to include both the cerebral and spinal meninges—the pathological conditions and surgical treatment being about the same.

The causes are:

1. Trauma.
2. Exposure to extremes of temperature.
3. Excessive mental labor.
4. The various constitutional diseases.
5. Diseases of the cranial bone.
6. Abscesses, cysts and tumors.
7. Pachchionian bodies.

The disease may be general, limited to the convexity or the base of the brain, but confined to the pia.

Dr. Francis Minot gives three-fold indications for treatment.

1. To prevent or arrest inflammation.
2. To modify its violence and shorten its duration.
3. To place the patient in the best condition to withstand the violence of the disease, and to recover from its effects.

In simple meningitis we find a condition that has been recognized only from a medical standpoint, surely not surgical.

We have been taught that the ex-

udation may be caused to become absorbed by one or more of the various drugs.

We find a high mortality; perhaps higher than in any of the acute diseases, while the majority of cases that recover suffer some impairment of mind or of the nervous system.

The diagnosis of simple meningitis is one of the most difficult to make, and is always to be differentiated from the tubercular form, which is surely one of the most fatal diseases.

With all of these facts standing out so prominently before us would it not be well for the medical profession to consider something more radical in the way of treatment than has heretofore been presented?

A recent personal experience leads me to most earnestly advocate some surgical interference that will relieve intracranial pressure as the result of serous exudation therein contained, and not rely upon medication to bring about absorption, for surely we have but little evidence that such can be produced.

The time to do this is at the onset of pressure symptoms, and not after the tissues have been subjected to prolonged distension or compression. The fluid contained within the arachnoid cavity is easily reached and evacuated.

My experience and observation lead me to say that prompt surgical interference, by way of removing this fluid, will prevent many cases from dying.

I am informed by responsible parties that the operation recently performed in one of the German cities has resulted in recovery.

There is much more to be hoped for in the simple form of this disease than in the other three if the simple form ever exists.

Tubercular meningitis is not definitely understood; there seems to be some question as to whether it exists as a primary disease. Whether it does or not I think I am safe in saying that all cases terminate fatally.

This is a deplorable state of affairs, and one that justifies the most radical measures for its relief.

I believe that tubercular bacilli may exist within the cranium independently of any other part of the body; that is, they may be found there without being found elsewhere.

However all this may be, free drainage of the arachnoid meninges is a rational procedure. This may be accomplished by one or more perforations of the cranium and the dura.

I cannot speak from personal experience in this matter, but I shall avail myself of the first opportunity to determine the results of such an operation in this disease.

Purulent meningitis has been dealt with from purely a surgical standpoint, as the causes come within the domain of surgery, being

1. Diseased bone.
2. Fracture of the cranial bones.
3. Perforation of the cranium by injury or operation.

This condition is usually due to diseased bone and is more often met with than generally supposed.

No person should question the propriety of doing anything that is necessary to remove pus from the cranial cavity, regardless of what the cause may be.

I read a paper before the Cincinnati Medical Society on November 2, 1891, upon this subject, reporting six cases as the result of acute middle ear trouble. I, at this time, most earnestly advised any immediate surgical interference by which the pus could be evacuated. Mr. Murray (British Medical Journal, January 5, 1895, p. 9), reports three consecutive cases operated upon for the relief of abscess, followed by recovery, as the result of acute inflammation of the middle ear.

Hemorrhagic meningitis.—This condition has thus far never been detected, except by post mortem.

Its causes are not yet understood. The remoteness of its causes, and its detection impossible by any physical sense, warrants an exploratory incision. While the disease is very infrequent, it might seem that such a procedure is less justifiable; however, the treatment of hemorrhagic meningitis is yet to be determined.

Pericarditis.—Causes:

1. Septicemia.
2. Trauma.
3. Inflammation of adjacent tissues.

The seriousness of this trouble depends upon the amount of exudation which contains blood and pus.

If the cavity becomes filled to such a degree as to interfere with the movement of the heart, the consequences, as a rule, are permanent, and in a majority of cases immediately disastrous.

The absence of pain is one of the greatest indications of a large amount of fluid within the pericardium, and one of the greatest dangers accompanying the presence of this fluid are adhesions which cause the greatest cardiac disturbances, and are usually followed by hypertrophy or dilatation.

If the ordinary physical senses do not indicate the presence of fluid, an exploring needle is indicated. If fluid is present the withdrawal of the needle should be followed by a larger one, as often as is found necessary to keep the fluid within the normal amount. The time requires usually from two to five days. In this way circulation is guarded, obstacles avoided and the patient tided over a most serious part of the disease. For in this as in any other acute disease we may say that it is self-limited if properly cared for.

It is taken for granted that this operation should be done, as all others should be, with aseptic precautions.

Pleurisy.—This is a very common condition, and one in which the necessity of removing the fluid was first recognized; consequently there has been more surgical work done in this cavity than in any other, except it be the peritoneal.

The fluid may be fibro-serous or purulent, each being acute or chronic. The presence of fluid may be due to inflammation, cardiac, renal or hepatic diseases, perforation of the lung or other abscesses. It is more easily determined and more easily removed, the question being as to its character.

There should, however, be no question as to whether or not it should

be removed, regardless of its character.

As long as we have no means of preventing the secretion of fluid, we must necessarily depend upon two ways of removing, one by absorption and the other by operative means.

The exudation into the pleura is a simple process, and, of itself, without danger, and if the fluid is not allowed to accumulate, we are as sure of recovery as the stoker is that his fire will burn if the ashes are not allowed to become banked.

But if excessive accumulation occurs and is allowed to be prolonged, we must expect the vitality of the patients to run on a low ebb, as the result of all things that follow pain, indigestion, loss of sleep and non-oxygenation of the blood.

No person would hesitate to remove the fluid in chronic pleurisy from any cause. By so doing, sleep and the prolongation of life are assured.

A recent case has been the means and perhaps has done more in convincing me that fluids should be at once removed in both the acute and chronic forms.

Within 190 days 51 aspirations were made, 26 on one side and 25 upon the other, averaging one quart at each sitting, the total amount being 51 quarts within 190 days, or one quart every four days. This, however, was the result of aortic stenosis.

My experience with acute inflammation of the pleura has been equally satisfactory, and I say without hesitation that an abnormal amount of fluid, whether serous or purulent, should be removed as soon as detected and as often as necessary to keep it within the normal amount.

If, after a thorough and impartial trial, relief has not been assured by means of the aspirator, drainage should be resorted to by the removal of a section of one or more ribs, as the case may require.

The foregoing statements apply to patients of any age.

Synovitis—We have here the most common of all the inflammations of serous cavities.

When we consider the great number of articulations within the human body, and each articulation possessing synovial membrane, this statement, I do not believe, will be questioned.

Each joint is subject, at some time, to irritation of more or less severity. This is always followed by more or less exudation, and as there is not now an articulation which does not come within the domain of surgery, much more is hoped for in their treatment. It is surprising to see with what limited resources surgeons have availed themselves of in this department. Like the mines of gold and silver, the most available have been the first attacked.

This is why the surgery has been limited to the larger and more available articulations. The surgeon, however, is not excused from performing his duty in removing fluid from the most remote synovial sacks.

The causes are the same in this as in any of the other serous exudations, trauma, perhaps, being the most frequent.

I believe, however, that tuberculosis is responsible for the destruction of a greater number of articulations than all the other causes combined.

It is gratifying to know that a great amount of fear in this work has been dispelled, and that both surgeons and physicians, as well, are becoming courageous and more willing to assume responsibility in removing fluid from synovial cavities.

Teno synovitis is similar and the treatment should be the same. In addition the sack should be removed, if possible.

Pernacethesis of a joint of any size in any locality should not be denied a sufferer, no difference what the character of the fluid may be.

It is a matter of judgment on the part of the operator as to the means or the frequency with which it should be done, and any physician should be capable of doing it promptly and without fear. There is far more danger in allowing the fluid to remain than there is in its evacuation by skilled hands, and the after condition of the patient better than

if the pain had been relieved by some narcotic.

Pain, in acute inflammation of serous cavities, indicates the use of an asperator, and not a narcotic.

In conclusion I would say:

1. That pain is not always indicative of a large amount of exudation.

2. The presence of a large amount of fluid is not always accompanied by a rise in temperature.

3. That there are no means of determining the character of the fluid without exploration.

4. The use of an exploring needle is the only means of positively determining the presence of fluid.

5. The temperature is sometimes subnormal.

6. The fluid should not be allowed to reach above normal in quantity.

7. It should be removed as often as necessary to keep it within the normal amount.

8. Open drainage should be made in all cases of tubercular fluid, even though it be within the spinal canal, by means of the lumbar puncture.

9. That surgical anesthesia is not necessary in case of cerebral meningitis.

10. That the probabilities are that the irrigation of serous cavities may aid much in effecting a permanent cure.

11. That the cause of an exudation should, so far as possible, be removed.

12. That the general condition of the patient should be cared for in this, as in all other debilitated conditions.

13. That there is everything to gain and nothing to lose in draining these cavities where the fluid is tubercular.

14. That narcotics in any form are contra-indicated, absorption less likely to occur with them than without them.

15. That the irritation of the serous membrane by a needle, as has recently been suggested, may be worthy of profound consideration.

16. That antiphthisine (Von Ruck) may prove itself one of the most valuable means in treating tubercular serous cavities without mixed infection.

PHILADELPHIA ACADEMY OF SURGERY.

STATED MEETING, APRIL 1, 1895.

Dr. Thomas G. Morton presented two recent adult cases, illustrating

EXCISION OF THE ASTRAGALUS FOR INVETERATE EQUINO-VARUS.

Gentlemen: I have on several occasions presented to the society the results following excision of the astragalus for the rectification of equino-varus, congenital or acquired, but I do not remember that we have had before us, as yet, the results after such operations upon adults.

The first case I show you was brought to the Orthopedic Hospital by Dr. Wentz, of Scranton, on February 28, 1895. He is 22 years of age; the left lower extremity was found to be fairly well developed, but the ankle was weak, and the foot was "flat;" the right limb presented very great atrophy in its entire extent, and the foot was exceedingly rigid and in the position of equino-varus; the patient walked on the dorsum; the astragalus was dislocated forward, as is usual in such cases. The great wasting of one limb and the partial feebleness in the other seemed to indicate the malady was not congenital, but as a result of an early attack of infantile paralysis.

The operation was performed March 3 and consisted in dividing the tendo Achillis, tibialis anticus, the flexor tendons of all the toes, and the plantar fascia; the excision of the astragalus and a portion of the scaphoid, which hindered a perfect right-angle position of the foot; the foot was then carefully dressed and placed upon a right angle tin splint; the wound closed by primary union, and at the end of three weeks a well-fitting shoe and brace was substituted—good ankle motion has been secured.

Case 2 is also a male, aged 22 years, who was sent from Osceola, Pa., to the Orthopedic Hospital and admitted March 13 and operated upon the following day. The deformity was inveterate equino-varus, and

probably congenital. The case was almost identical with the one just presented, and the same operation was performed. It is now only 16 days since, and the wound, it will be observed, has united, and the ankle shows good but not voluntary motion. The position of the foot is normal.

I thought it might be of interest to the Fellows of the Academy to see these recent cases, one being a month, and the other only 16 days after the operation.

DISCUSSION.

Dr. J. Ewing Mears: Do the articulations give any trouble after the operation?

Dr. Morton: I have not seen bad consequences after any of my operations, and I have done the operation in a large number of cases.

Dr. Mears: It is interesting to know that synovitis does not occur, as the operation involves a number of the articulations of the tarsus.

Dr. Morton: I did not have synovitis in a single case, and generally there is no rise in temperature or any evidence of reaction.

Dr. Henry Wharton: Is not the plantar fascia a very great bar to the correction of the deformity, and is it not necessary to divide it in many cases?

Dr. Morton: Yes; in every case in my experience.

Dr. Wharton: It has been my experience also that the plantar fascia is a bar to the correction of the deformity and has to be divided. I have had a number of cases of equino-varus in children and found excision of the astragalus the only thing to be done in these inveterate cases. The results obtained are so much better and are more permanent than by the old method of simply dividing tendons. It has been particularly useful in the case of children of 10 or 12 years of age, where the operation of division of tendons has been done or repeatedly done in infancy, without removing the deformity. In such cases there is nothing to be done but to divide the tendons and fascia and excise the astragalus.

Professor John H. Brinton presented a specimen consisting of a

LARGE OXALIC ACID CALCULUS TAKEN FROM THE HUMAN BLADDER.

I exhibit here a rather large vesical oxalate-of-lime calculus which I removed several months ago at my clinic at the Jefferson College Hospital. The patient was a German, 46 years of age, a blacksmith from the interior of the State. He had had symptoms of stone for 25 years. I made a longitudinal incision into the bladder by the supra-pubic operation and attempted to remove the stone, but found that it was impossible to do so until I had enlarged the bladder opening by a crucial incision. I did this in order to avoid injuring the peritoneum. I then removed this spherical oxalate stone, fully two-and-a-half inches in diameter, and which weighed six ounces when taken out. It is the largest oxalate calculus that I know of in this city. It is so hard that when I took it to a lapidary he tried to cut it with a circular saw; but abandoned it, as he said it would injure his wheel. The surface of this stone is studded with small prominences containing minute brilliant crystals which look like diamonds. The surface is quite rough. It is noteworthy in that the patient carried the stone for 25 years and that it gave him comparatively little trouble. In fact, he did not complain of great pain, but said that he knew he had a stone because he could feel it, through the abdomen, with his fingers. The man went home at the expiration of four weeks, having recovered without any bad symptoms.

DISCUSSION.

The President: The remarks of Dr. Brinton remind me of a case which occurred some years ago. I was making a post-mortem examination of an elderly Quaker gentleman who had been for many years a patient of Dr. Wistar. We examined the various organs, and finally we opened the urinary bladder, in which we discovered a large calculus, which must have been growing for many years, and yet it had not given

rise to any pain or annoyance, for, if it had, he would have spoken of it to Dr. Wistar, who had been his physician during this time. He apparently had no symptoms of bladder trouble, or none of any consequence.

Dr. Brinton: It is hard to understand why a large stone like this would cause so little pain. There must have been a time when the stone was juvenile and much smaller, and should have caused pain, but the patient said that it had not given him any great trouble, and that he had continued to work at his trade until coming to this city for operation.

Dr. Wharton: Large stones do not give as much trouble as small ones. I remember a case of a child whom I operated upon some years ago, who had stone in the bladder and suffered very much from pain and tenesmus, with hemorrhage from the nose, and he also had sub-conjunctival hemorrhages during micturition. In this case the stone that caused so much disturbance only weighed thirteen and a half grains.

Dr. J. M. Barton: Most of the pain in cases of stone in the bladder is owing to the attempt of the patient to empty the bladder, the stone obstructs the urethral opening, acts as a ball-valve and stops the current of urine. The patient continues the pressure, but the ball-valve will not allow the water to escape from the bladder, and the increased pressure leads to enlargement of the muscular bundles and to hypertrophy of the middle coat of the bladder. When the stone gets larger it is less apt to act as a ball-valve, and may give less trouble. The extreme roughness of this stone would prevent its acting as a ball-valve and would account for the absence of pain.

Dr. Mears: I agree in the opinions expressed that small stones give the most trouble and also in the explanation just given by Dr. Barton of the cause of the pain. Some years ago I was called to see a patient who had great trouble in micturition and suffered great pain from stone in the bladder. I removed the stone and found it the size of an almond kernel, although it had caused a good deal

of pain and hemorrhage. The stone presented to-night is certainly very interesting. It is of interest to inquire how this stone has grown. Was the stone encysted?

Dr. Brinton: No; it was not. The bladder was thickened and contracted around, so that there was not much cavity beside that occupied by the stone. The patient had constant dribbling of urine, because the bladder could not hold any water. The mucous membrane, from pressure on the irregular surface of the stone, presented a very bad and reticulated appearance from chronic inflammation.

Dr. Mears: The man performed very active work at his trade as a blacksmith, which would probably change the position of the stone and keep it from becoming encysted.

Dr. Thomas S. K. Morton: Why did he have incontinence of urine?

Dr. Brinton: I suppose because there was so little cavity in the bladder to hold water. The stone occupied too much space.

The President: It was strange that a stone of this weight did not cause ulceration and ulcerate its way out of the bladder into the rectum or perineum.

Dr. Brinton: There was suppuration, and the bladder looked and felt so ragged when I took out the stone that I made an unfavorable prognosis. But he did very well after the operation, and I kept him in bed a week longer than usual to prevent any ill result. He had a muscular abdomen, not very fat, probably owing to his blacksmith work. In reply to the President, I would state that no marked bowel symptoms were complained of in this case.

Dr. John H. Brinton made some remarks

OF THE USE OF ESMARCH'S HEMOSTATIC BANDAGE.

Gentlemen: The few remarks I have to make on the subject do not rise to the dignity of a paper; I simply wish to bring to the consideration of the Academy some objections to, or dangers from, the use of Es-march's bandage as a constricting and controlling band. I have used the

elastic bandage for many years, and I have had several cases in which the results were not altogether satisfactory.

For instance, a number of years ago I operated at my clinic upon a woman who suffered from some serious bone disease of her leg. The Esmarch bandage was applied from the foot to the lower thigh, and the constricting band (the india-rubber tubing first in vogue) was placed just above the knee by a skillful hospital colleague, now deceased. There was no bleeding during the operation. The bandage had been applied and the operation was begun with the leg semi-flexed upon the thigh, but during the operation the limb was extended. After the operation was finished I found that the constricting band had deeply divided the muscular tissues, posteriorly, almost to the bone. The large vessels and nerves were not injured. This damage resulted, not from the direct constricting force or pressure, but from the tearing of the tissues, firmly fixed above, by the extension of the leg during the operation. I was much annoyed by the accident, and dreaded the results. The patient, however, made a very good recovery; but the incident made a deep impression upon my mind.

In this connection, I ask if any injurious effects of a similar kind have ever been noticed by the Fellows of the Academy from the movement of the limb after the constricting band had been applied? Of course, we all know that the first roller should not be applied too tightly over an ulcerating surface or a tumor, for fear of driving morbid material from the affected spot into the general circulation. There is another point about which I would like to ask the experience of the Academy. It is in relation to the Esmarch bandage and secondary hemorrhage. A few weeks ago I made use of the Esmarch on a case of amputation at the knee-joint. This is an amputation that I had done many times during our late war, and had then often noticed a tendency to consecutive secondary hemorrhage. In the two cases upon whom I did this amputation about

a month ago I found a troublesome hemorrhage coming on about six hours afterward. I operated about 2 o'clock, and was called about 8 o'clock on account of bleeding. It was not in either case a free hemorrhage, but rather a persistent oozing from tissues which did not bleed at the time of operation. It came from the superior articular branches, and not from the azygos or inferior articular vessels, as the popliteal artery had been divided on the line of the articulation above their usual origin. I was obliged to open the stump and apply eight or ten ligatures to arrest the hemorrhage. I am unable to tell whether this hemorrhage was produced indirectly by the rubber-constricting band or whether it resulted from some peculiarity of the case. It is possible that the band may have exerted undue pressure on the smaller vessels, producing vasomotor paresis, impairing their contractile power, and so have favored a post-operative enlargement, and a consequent reactionary or consecutive bleeding.

In our old war times I have participated in many amputations at the knee, and I am certain that I have often noticed this tendency to consecutive hemorrhage. My object in bringing up this subject was to ask if any Fellow of the Academy has at any time observed any evil effects from the constricting band of the Esmarch apparatus, and also whether secondary hemorrhage may not be the result of its use.

DISCUSSION.

Dr. H. R. Wharton: I would ask if Dr. Brinton has noticed any difference as regards hemorrhage when the roller is applied first and the constricting band second and when the constricting band is used alone?

Dr. Brinton: I have always used the first method, and cannot, therefore, answer from my own experience.

Dr. Wharton: I think that there is always more hemorrhage after applying the elastic bandage, followed by the elastic strap, than by simply applying the strap. I think that there is a likelihood that the band is ap-

plied too tightly in many instances. The secret is in applying it with just sufficient force to do no damage, and simply to temporarily control the circulation. I have seen no cases injured by the use of the Esmarch tube or strap, but think its use is likely to produce more consecutive hemorrhage.

Owing to a death from consecutive hemorrhage after the use of the Esmarch bandage a number of years ago, we have not, at the Children's Hospital, for many years used the Esmarch bandage or strap in cases of excision of the knee-joint. The most satisfactory use of the Esmarch bandage is for operations upon bone, for necrosis or caries. Another use for the Esmarch is in searching for foreign bodies, such as needles, etc., in the tissues, the search can be made with so much more comfort and with a greater chance of finding the foreign body if we first apply the Esmarch bandage and render the parts perfectly bloodless.

Dr. W. Barton Hopkins: I can fully corroborate the statement regarding the risk of applying the circular turns of Esmarch too tightly, as I have for several years been in the habit of demonstrating the immense constricting force which these turns are capable of exerting. By drawing each turn with the utmost tension around a bit of white pine wood a decided crease may be made in it, fully demonstrating its power and giving an object lesson which is not easily forgotten.

Dr. Joseph Hearn: The Esmarch is generally applied too tightly. It is not necessary to use so much force. I can make a part bloodless simply by the application of my hand. My experience has been limited with secondary hemorrhage, as I have had no secondary hemorrhage. I apply the Esmarch very lightly, and always apply it myself. I only apply ligatures to the larger vessels, and have never had occasion to open a stump for secondary hemorrhage.

Dr. Barton: I have nothing to add to what has been said, except that in cases of resection for ununited fracture I have found the Esmarch bandage unsuited, on account of the large

amount of blood thrown out afterward. In operating for ununited fracture of the humerus I would not use the Esmarch bandage, as I have had to remove the permanent plaster dressings for this cause.

Dr. Mears: I was so much impressed with the harmful effects of the tube of the Esmarch apparatus that I substituted for it a flat rubber band, and reported its use in two operations in the Philadelphia Medical Times, August 15, 1874. I have seen a number of evil effects from the application of the tube, such as paralysis from pressure upon the nerves. I always use the band in preference to the tube, as being less injurious.

Dr. William H. Taylor: I have seen the Esmarch bandage applied too tightly, and have myself been very careful in this respect. In excision of the knee I have usually done without the roller bandage, and have used a wide band for the purpose of constriction. In all these cases there is a good deal of oozing, and after excision of the knee this oozing is decidedly increased by the use of the bandage.

Dr. Thomas S. K. Morton: With regard to the Esmarch roller bandage, I seldom use it any more for operations on the extremities, having had demonstrated to me, when in Glasgow, by Mr. Macewen, his method of making the limb bloodless. By elevating the limb for a few minutes we observe after a time that a spasm of the bloodvessels occurs and the limb becomes bloodless, and then the constricting band can be applied. With regard to the application of the bandage I do not intrust this to an assistant, but always apply it myself. I always use the narrow strap and not the tube. I take this opportunity of saying that the Esmarch apparatus, as sent out by the instrument makers, is usually defective, because the bandage is too narrow; it should be wider. With regard to the paralysis following the application of the constricting band, it is most liable to occur when it is used just above the knee or elbow, and especially the latter, on account of the course of the musculospiral nerve. This occurs so

frequently that we should prohibit the use of the Esmarch bandage around or above the joints.

Dr. Brinton: As a matter of historic record and justice, I wish to say in regard to Dr. Morton's description of the method of making a limb bloodless, as practiced by Macewen, that this method probably antedates the present day. I saw it practiced many years ago at the Jefferson College by the late Professor Joseph Pancoast.

The President: I also remember seeing Dr. Pancoast applying a broad bandage to a limb in order to reduce the amount of blood in it, and take off the bandage before the operation. This was long before the Esmarch bandage was used.

Dr. Thomas S. K. Morton: I think that I have been misunderstood. There was no bandage applied by Macewen; he simply elevated the limb and produced a contraction of the arterioles, which made the limb bloodless before applying the strap.

The President: It is very remarkable in Dr. Brinton's case that the tissues were divided. Were the muscles cut or only the skin?

Dr. Brinton: The skin was torn slightly at one point and the muscles were distinctly cut through. I have not seen this accident mentioned in treatises on surgery, but in the American Text-Book of Surgery it is stated that there should not be any motion of the limb after the band has been put on.

The President: I have done very many operations upon the knee, but no amputations at the knee-joint since the war. I have not, in many years, had any secondary hemorrhage.

Dr. Wharton: I have recently seen very little secondary hemorrhage. I had a case of reamputation of the leg last summer, where I had to apply the Esmarch bandage where consecutive hemorrhage occurred, and I had to open the stump and tie the vessels. I have not noticed any special liability to hemorrhage after operations at the knee-joints.

The President: In amputating at the knee, did Dr. Brinton remove the condyles or leave them?

Dr. Brinton: I referred rather loosely to these amputations as "at the knee." In each case I sawed off a portion of the condyles, if necessary, to bring the flaps together, but there was not any hemorrhage from the bone.

The President: What was the nature of the injury or disease?

Dr. Brinton: Both were cases of sarcoma.

Dr. T. S. K. Morton: Might not that have been the cause of the hemorrhage? I have noticed that in cases of operation for sarcoma there was much more tendency to bleeding than in ordinary amputations for injury. The vessels are often enlarged.

Dr. Brinton: The vessels did not appear enlarged.

Dr. Hopkins: I have not seen any hemorrhage, except after sloughing.

Dr. Hearn: I have not had any experience of this kind, and never have opened a stump for hemorrhage.

Dr. Brinton: I might say, to correct a possible misapprehension, that, although I have of late years done many amputations, these are the only two in which secondary hemorrhage occurred.

A SPECIAL FOOTBALL LESION.

Maag (Hospitals Tiende) has frequently met with subpatellar bursitis in football players, and regards this as a special lesion, which he attributes to violent and repeated contraction of the quadriceps femoris muscle in kicking the ball. Rovsing, in an abstract of this paper (Cent. f. Chir., No. 16, 1895) is inclined to attribute the bursitis rather to effusion of blood into the bursal sac.

DEATH FROM ANTITOXIN.

An infant 2 years and 3 months old died in New York from blood poisoning, the result of an injection of antitoxin. Dr. Samuel Kerr made out the death certificate, in which he stated that the injection caused the condition producing death. The Board of Health refused to accept the certificate, and Deputy Coroner Weston was ordered to perform an autopsy. The injection was not given by the board. This is the first death in New York from antitoxin.

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SUTURE OF THE HEART.

Del Vecchio (Rif. Med., April 4th, 5th, 1895), as the results of experiments on dogs, concludes that suture of the heart in cases of wound is possible. At the recent congress in Rome (1894) he showed a dog whose left ventricle had been wounded in two places (one penetrating into the ventricular cavity), forty days previously. The author had sutured the two wounds with catgut and silk, and the dog appeared at the time of exhibition to be in perfect health; it was killed on the forty-second day after suture. The apex of the heart was found firmly adherent to the thoracic parietes. Both wounds were firmly healed, and in one the scar could be seen on the endocardium, proving the penetration. An interrupted suture was found to answer better than a double continuous suture, as necrosis generally followed the use of the latter. Dogs present a special difficulty in these experi-

ments, inasmuch as one has to open the pleural cavity to reach the heart. In cases of wound of the human heart, Del Vecchio proposes the following operative procedure: Two longitudinal incisions to be made from the lower border of the third rib to the upper border of the seventh, the one along the lower margin of the sternum, the other 5 to 10mm. inside the nipple line; these incisions to be joined by a horizontal one made in the fourth intercostal space. The fourth, fifth and sixth ribs and cartilages to be divided, and the outer cutaneous flaps turned up. The pleura to be separated and pushed on one side with the finger, exposing the pericardium, which is incised longitudinally. The wound is then united by interrupted sutures. Death in cases of wound of the heart seems to be chiefly due to pressure from the blood effused into the pericardial sac. Since this pressure is also a check to further hemorrhage, it is a nice question whether operative interference may not do more harm than good, as far as the hemorrhage is concerned. Paracentesis may, however, be practiced, to be followed, if necessary, by free incision of the pericardium. A short bibliography of the subject is appended. Fischer collected 376 cases of heart wound with a mortality (two to three minutes after injury) of 20 cent. Death has been noted in periods varying from a few seconds to nine months after the injury.

THE UNCONTROLLABLE VOMIT- ING OF PREGNANCY.

The last volume of the Transactions of the American Gynecological Society contains an interesting paper by Dr. Edward P. Davis, of Philadelphia, on this subject, with a report of three fatal cases. The paper itself and the discussion upon it show clearly the difficulty that often arises in coming to a conclusion whether it is necessary or not to induce abortion. Two of the patients whose cases are recorded by Dr. Davis apparently died undelivered; in the

third the uterus was emptied artificially, but the patient died shortly afterwards. There are various local therapeutic measures short of interfering with the pregnancy that appear to have been attended with success. Among these may be mentioned elevating and supporting the uterus, either by means of a pessary or by means of tampons, the application of caustics such as chromic acid to the vaginal portion of the cervix or cervical canal, and scarification of the cervix, though having regard to the weak state of the patient in bad cases the loss of even a small quantity of blood is not a matter of indifference. A measure that must be regarded as more severe, inasmuch as it involves a risk of terminating the pregnancy when such a step has not been deliberately intended, is a moderate dilatation of the cervix. In addition to local treatment, Dr. Palmer Dudley, of New York, speaks highly of half-grain doses of cocaine and three-grain doses of monobromate of camphor internally. It must be remembered that even the induction of abortion will not necessarily save the patient if interference is too long deferred. Among symptoms that should suggest the necessity of emptying the uterus are especially the presence of coffee-ground material in the vomit, substernal pain and distress, with marked anemia and emaciation. Yet every obstetrician of experience knows how unaccountably, even when the patient seems in a bad way, sudden improvement may set in, the vomiting ceasing and normal delivery taking place at term. When the symptoms that have been mentioned are well marked, it is better, however, to occasionally interfere unnecessarily rather than take the risk of deferring interference till too late. A therapeutic measure of some clinical value is to impress on the patient that the induction of abortion will be necessary if the vomiting does not cease or diminish by a certain time—three days, for instance. In some such cases, and especially if the patient objects to the operation, an immediate improvement may be observed.

DIGITOXIN.

Wenzel, of Unverricht's Clinic (Centralbl. f. inn. Med., May 11, 1895), draws attention to the value of digitoxin (Merck's), which is the most active principle of digitalis. He has treated with it 9 patients—3 with valvular disease, 3 with myocarditis, and 3 with nephritis. In 1 of these cases the treatment had to be repeated after an interval, and in two others it was adopted on three separate occasions. In addition three other patients suffering from other incurable disease, as well as cardiac complications, were also treated with digitoxin. In most cases the patients were desperately ill with disturbed compensation, engorgement of the pulmonary circulation, and marked diminution in the urine. When possible the patients were not treated for twenty-four to thirty-six hours after admission. The drug was always administered by clyster; 15 g. of the following solution—digitoxin 0.01, alcohol 10, aq. dest. ad 200—was administered by the rectum in 100 g. of lukewarm water, at first thrice, then twice, and lastly once daily. The single dose thus given was 0.00075 digitoxin. Only in two cases was an unpleasant result noted—namely, vomiting—and this soon ceased. The author gives details of 12 cases. The duration of treatment and the effects on the breathing, pulse, quantity and specific gravity of the urine, as well as on the amount of albumen present, were carefully noted. The author never had negative results, the patients responding more or less promptly to the digitoxin. It was successfully used in cases of valvular disease and myocarditis, even when other remedies, including digitalis, had been tried in vain. The pulse became stronger and less frequent. The cyanosis and dyspnea promptly and surely disappeared, and the diuretic action of the remedy was very marked. This method of administering digitoxin reduces to a minimum any disturbance of the alimentary canal. The prompt results obtained by the above-mentioned doses suggest that even smaller ones might be efficient.

THE GERM THEORY.

"Gallaird (Med. Moderne, April 20, 1895) relates a case under his care in which a large suppurating cyst of the liver was opened and drained. The pus, examined microscopically, was found to contain hooklets and pneumococci, without any other microbe. The patient was not then suffering, nor had he ever suffered, from pneumonia."

The above occurs in the British Medical Journal for June 1, 1895.

We always have supposed the germ theorists believed that suppuration could only take place under the influence of the staphylococcus pyogenus or special pus producing germ. Here we have a germ, existing in a suppurating cyst of the liver, which has no relation to suppuration in the general sense, inasmuch as resolution may take place in pneumonia without suppuration.

Does this not illustrate our position in relation to germs that they exist only because favorable media are developed?

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

SOME PHASES OF IMPROVEMENT.

Under this caption Dr. W. H. King recently makes some remarks of interest which are worth repeating.

Medical electricity needs a good many phases of improvement yet, and needs to have the practical knowledge of improvements far more widely disseminated among the profession. Take the whole matter of electro-therapy—the best of it—as it is understood to-day by a few, and advance general practitioners everywhere to an equal understanding of the theory and practice of medical and surgical electricity, this broad sweep of knowledge would without question represent the most important therapeutic development that is in sight. It would mark an era in therapeutics greater than the discovery of any drug whatever—greater

than any drug ever did or ever can mark, with the possible exception of the discovery of anasthesia. At the past rate of progress, however, it may take about half-way to the millennium for the mass of physicians to catch up to the facts that are known now.

Dr. King's reflections are as follows: "In looking over a number of old electrical appliances and batteries which I have collected for the past 15 years—some I once used and some have collected for curiosity sake—I was struck by the great change which had come over the construction.

I say construction, for with one or two exceptions there is no new principle involved. (New principles are scarce in mechanics.—Ed.) These old batteries may be divided into two classes: First, those which were good for nothing, and second, those which were worse than useless. It is easy for one to look back at the mistakes and fallacies of past generations and, with a patronizing air, pity their ignorance, but so rapid has been the change that I am forced to shudder when I think that I actually used many of these instruments of torture and was enthusiastic in their praise. Such experience makes one almost lose confidence in himself as well as things in general. It is not fair to suppose that in 15 years more we will look back at our present status with very much the same feelings as we now look at those of 15 years ago. If we deny this we must deny progression.

Of the first-class, those which were good for nothing may be mentioned the old pocket batteries, especially the pocket galvanic batteries, the one-cell galvanic battery used for electrolysis, and the old electric belts of the Pulvermacher type, which were largely used by physicians at one time.

Of the second class stands first the old galvanic batteries which lacked facilities to regulate the current strength, and which were so unsteady in their action that they changed in intensity almost from minute to minute, of which fact we were ignorant, owing to the lack of a milli-

amperemeter. The old form of a magneto-electric battery, which was either strong enough to twist the patient all out of shape or was not strong enough to be felt at all, was undoubtedly the most vicious instrument of any.

"The faradic batteries, the coils of which were wound irrespective of the length or size of wire, and with a vibrator which changed from the key of E to G, and back again every other second, perhaps stood next in the category of the old magneto-electric. Yet, who will not say that the older electro-therapeutists did not have success? Did they not discover most of the laws of electro-physiology and lay the foundation of the whole subject, and with these very crude and, to us, unsatisfactory instruments? Now, are we, with all our improved apparatus, making as great advancement in electro-physiology and electro-therapy? Of the former it is safe to say that we are not, but of the latter it is just as safe to say that we are surpassing them.

"Is it because the subject of electro-physiology has been exhausted that we have not kept pace with our former workers in this field? Not so; but it is due to the age in which we live. This is above all a practical age in medicine, or, in other words, it is a therapeutic age. Never has there been a period in medicine in which there have been made such radical changes in therapeutics, and so many of them, as in recent years.

"The same tendency is prevalent in electro-therapeutics, and the principal advancement made along that line. The time will come again when physiological research will return, and I venture to assert that electro-physiology will not be lacking; and with the improvements in our facilities for such experiments we will undoubtedly surpass all former reasearches of like nature."

Dr. King states that this is a therapeutic age. It ought to be. It ought to be an age of wise, safe, rapid progress in the field of medicine, in which the opportunities for advancement are so great. A good deal of energy is expended, but some of it must be deflected from the true

course, for it excites too much notice in the lay press. Clinical tests of the curative properties of a drug should be properly conducted in suitable institutions in the manner which experience approves. To first exploit a wonderful new discovery in the daily papers—herald it abroad as if already time-tried and valuable, and then apply it indiscriminately in general and private practice, only to find it either useless, or dangerous, or both, is misdirected therapeutic activity. The bright, illustrated weekly "Life," of February 7, takes notice of this tendency of the times in the following way. In a ring, decorated with skulls, appears a "Death Warrant," duly signed and sealed in legal form, and beside it is this paragraph:

"Number 978,403,214.

"The other day we read of another operation for appendicitis, in which the victim failed to recover. This was natural and to be expected, particularly if the real trouble lay in his lungs or brain. No up-to-date doctor can afford to fail in detecting a clear case of appendicitis occasionally. In this case we are informed that 'it is the opinion of the doctors that the patient would have had no chance of living without an operation.'

"This is, indeed, a surprise,

"And how unlike a doctor!

"From what we know of these gentlemen we should expect them to say: 'Our diagnosis was wrong. The operation may have been a mistake, and he might have recovered without it.'"

Directly underneath the above is another paragraph, equally sarcastic in its tone:

"Why is it that physicians who are supposed to work on scientific lines are so liable to go off at half-cock?

"It now appears that antitoxin, their latest fad, is dying of diphtheria. It has had a dangerous little life, but will soon be lying in the ash barrel along with Koch's lymph, Brown-Sequard's elixir and similar wonders."

It is humiliating to reflect that these comments are justified, and

that the occasion for them is avoidable. Premature publicity works much evil in therapeutic research, where unknown and dangerous drugs are concerned, but if physicians would take up the therapeutic development of medical electricity and get all there is out of it, they would be on safe ground and do a power of good. In this field the line of danger is well ascertained, and can be avoided by all operators. Pioneer investigators have proven beyond all doubt that in certain forms of electric currents we have valuable remedial agents. The soil has been no more than scratched on the surface, and needs but the delving of intelligent workers to bring forth the greatest therapeutic harvest known in our age.

It is rather remarkable that so enormous a majority of physicians (there are said to 118,000 in the United States) should almost wholly neglect to cultivate this excellent addition to their armamentarium.

The average physician will read with interest an article extolling some experimental proprietary preparation and mentally determine to send for a sample and give it a trial; but he will glance heedlessly at the headlines of such rare papers on electro-therapeutics as stray into medical journals at long intervals without considering that the subject matter concerns him in any way. As a matter of fact there is no branch of therapeutic investigation which a practical physician in any department of medicine can pursue to better advantage. All the knowledge of bacteriology extant will not help him to prescribe better, or add anything to the curative properties of iron, arsenic, quinine, the iodides, etc.; but a fair acquaintance with the uses of a good galvanic and faradic battery, to say nothing of the electro-cautery and static machine, will add not less than 25 per cent. to his effectiveness as a doctor. It is gratifying to know that medical colleges are beginning to teach some of the necessary rudiments, and that post-graduate instruction in electro-therapeutics may now be obtained in a number of lo-

calities. The day should speedily come when every graduate of a reputable medical college should be as fully informed upon the subject of electricity as he is upon opium, belladonna, strychnine and saline cathartics. To accomplish this a revolution must be brought about through the creation of a general demand for such information. In this campaign of education leading medical journals could play a very important part.

RIP VAN WINKLE SPEAKS.

"Editor ———, I forgot whether it was the W—— or some other publication which proposed the question of the value in general practice of galvanic *versus* faradic batteries. I wish some bright country practitioner who has either would give maker, price, number of opportunities for use in course of the year, class of cases in which he has tried it, and the general results.

J. H. G——, M.D.,
Springfield, Mass."

This is a staggerer! I find it in an estimable medical journal (May 1895) published in the same city as the Times and Register, and it deserves to be reprinted in entire *italics*.

Galvanic vs. faradic! Bright country practitioner who has either!! Maker!!! Opportunities for use in course of a year!!!! General results——!!

Phew! This is too sudden, too searching and is likely to find everybody too unprepared to make a thoroughly satisfactory reply.

Ad interim I would enquire, "Where are all the makers? Why do they hide their light under a bushel and conceal all knowledge of their wares from any except a spry country practitioner who will not be baffled?" Where is the American Association of Electro-Therapeutics? Where has the able editor of the Medical W—— been all these late years, that he has kept his subscribers in the dark on one of the most luminous medical subjects of the day? And where, may I ask, has Dr. J. H. G—— secluded himself meanwhile? Such a letter could not be written except by a man whose comprehension of the subject of medical electricity (not "*galvanic vs.*

aradic batteries”) was absolutely *nil*. Can such a man be a modern, progressive physician? Why does this ignorance exist?

Think of its existing in Springfield, Mass.!! Shade of the sacred cod fish on Boston’s State House! Why does Massachusetts compel a hustling doctor to send to Philadelphia to launch out a national drag net for bright country practitioners who may, peradventure “have either,” and be able to shed light on the dark, deep secret as to who makes “either” battery, and what he charges for so doing. Has Massachusetts no copy of the International System of Electro-Therapeutics to send to benighted Springfield? *If not, she can obtain one in Philadelphia.*

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

THE SURGICAL TREATMENT OF EXOPHTHALMIC GOITRE.

Dr. Tuffier gives an interesting account of a case where surgical interference caused complete disappearance of all symptoms of the disease, which had resisted all other kinds of therapeutic treatment. The patient was a young woman aged 27, who had suffered with the malady for seven years, and its beginning was marked by a cystic enlargement of the right lobe of the thyroid gland, which was soon accompanied by severe exophthalmos and the other usual symptoms. Iodine injections, tapping, and electrical treatment were all tried in vain, and the patient became so ill that she could not work, and, in addition, showed signs of distress from the pressure which the enlarged thyroid gland was producing on the tracheae. It was then decided to perform partial thyroidectomy, and this was successfully accomplished, with the result that the general symptoms rapidly disappeared, the woman now being in good health and able to work. The exophthalmos also almost entirely dis-

appeared, and no other unpleasant symptoms have followed. Dr. Tuffier believes the success of the operation to lie in partial removal of the gland, which he thinks gives better results, both immediate and future, than complete extirpation of the organ.—*Lancet.*

THE INJECTION OF BLOOD SERUM IN CANCER.

Immunized blood serum is rapidly coming into favor in the treatment of cancer. Two German physicians, Professor Emmerich and Scholl, report a number of cases so treated, all being recurrent.

Their efforts in all cases were rewarded by singular success. What variety of cancer is amenable to such treatment?

They answer that it is unimportant that “what counts most is the duration of the disease.”

In recent cancer they promise a prompt and definite cure; the tumor being quickly resorbed. In chronic cancer, while seropathy will not eliminate the disease it will arrest its ravages, the tumefaction, infiltration and grangrenous invasion.

They designate the fluid “Klebs serum;” i. e., cancer serum. They have employed sheep, mostly on which the virulent cultures are first grafted. For a large neoplasm they inject about the circumference of it, from 10 to 25 centigrammes or more. In general it produces no febrile excitement, or insecutive constitutional disturbances; in all cases the general condition of the patient rapidly improves.—*Annales de Med.*

RELATION BETWEEN PLEURISY AND TUBERCULOSIS.

BY M. EICHORST, of Zurich.

This author claims that more than two-thirds of all cases of pleurisy are of a tubercular origin. He grounds the opinion on his experiments, which he made by injecting the pleuritic serum into healthy animals. In 23 experiments 15 animals became quickly affected.—*Annales de Med.*

THE SUBCUTANEOUS EMPLOYMENT OF FOWLER'S SOLUTION.

Dr. Kessing has employed with great advantage Fowler's solution in many cases in which it was badly borne by the stomach.

He used one part of the solution with two of sterilized water; the integument before hand being cautiously cleansed with suds and ether.

In 60 injections he had no abscesses. He always injected into the pectoral muscle or the fore arm. M. Popoff likewise reports most gratifying results from this line of therapy in malaria. He employed one gramme in each injection. It always acts with more energy in this manner. Drosdow, Mosler and Kobner employ the hypodermic method of using Fowler's solution in divers cases. In order to diminish its irritating action they mixed with each charge a few drops of carbolic solution, 1.40; or cocaine, 1-100—*Annales de Med.*

A RARE LESION OF THE PERINEUM DURING COITUS.

Professor Fenomenoff (*Jour. Obst.*) cites the following case: Mrs. T. presented herself complaining of sterility and incontinence of fecal gas, pain during intercourse, reflex neuralgias and cephalgia. Before marriage she enjoyed good health. Her husband, a man of powerful physique, was 25 years old at marriage. Her first intercourse had been attended with great pain and much loss of blood. After marriage this was repeated several times a day; always with great pain. Her husband complained of difficulty and dissatisfaction in the accomplishment of the act. For five years the woman patiently bore up with this pain, when she consulted a physician, who made a digital examination and prescribed medicines, all without any relief. When Fenomenoff examined her he found the vagina entirely intact, the ostium hermetically closed by an unbroken hymen; the penis had entered just above the fourchette, crushing through the mucous membrane and making a false passage through the recto-vaginal space.

Now an operation was performed, the hymen cut away and the passage closed in the perineum. She made a prompt recovery and soon was pregnant.—*Annales de Med.*

OPERATIONS ON BILIARY PASSAGES.

Tuffier (*Societe de Chirurgie*, May 15, 1895) reported 14 operations on the biliary passages. On one occasion while doing an operation on the right kidney he discovered how it was possible to reach the common bile duct by a lumbar incision.

He further, later, made several lumbar cholodectomies. This route, he declared, was possible and had the advantage of being outside the peritoneum. By it one could readily reach the duodenal orifice of the bile duct, explore the duodenum and the pancreas. The external incision in this operation is similar to that for a nephrectomy, but a little higher. Segoud admitted the possibility of reaching the bile canal by this way, but believed the vena cava was endangered.

Michaux did not believe that this line of penetration was practicable on the living. M. Routier had found anterior cholodectomy attended with great difficulties, when there were adhesions between the intestine and liver. Frequently he had observed Winslowe's foramen entirely obliterated by a false membrane.—*Le Progres. Med.*, May 18, 1895.

BONE SUTURE IN FRACTURE OF THE LOWER END OF THE FEMUR.

Walther (*Med. Mod.*, April 20, 1895) reports a case in which the lower extremity of the femur was broken into three fragments, and the tibia was displaced backwards, carrying one fragment—the inner condyle—with it. The joint was freely exposed and the fragments reduced and sutured in position; 12 months later the knee seemed rather large; functionally the result is perfect. The joint can be flexed to a right angle.

A CONTRIBUTION TO THE STUDY OF ORBITAL-SYPHILITIC OSTITIS.

BY A. BEAUDOUNET (These de Paris.)

The author tells us that specific perostitis of the orbit is not a common affection, yet it occurs more frequently than is generally supposed. There are two varieties, the acute and chronic. The acute simulates a deep-seated abscess in its degree of intensity.

The chronic form is a concomitant of tertiary syphilis, with hereditary type. Its progress is persistent, and its effects destructive. It may simulate an orbital tumor or malignant disease in exophthalmia. Tumefaction of the tissues produces great pressure on the optic and ophthalmic nerves; vision impaired and the suffering great.

The prognosis varies according to its precise seat and chronicity. Medication must be prompt and energetic; local to combat local symptoms and specific to reach the general system.—*Revue des. Sciences Med.*, April, 1895.

SURGICAL TREATMENT OF TUBERCULAR ASCITES.

BY G. FREES, *Deutsche Med. Woch.*, No. 46, 1894.

Since 1888 the author has treated 19 cases of tubercular peritonitis by incision and evacuation. The quantity of fluid removed was from one to 14 litres. In 16 the fluid was transparent; three times, somewhat turbid. He found the peritoneal reflexion of the pelvic organs in females the most frequent site of infection. In three ablation of the ovaries was practiced, though as the disease was diffused it effected no permanent relief.

In operating he employed an incision through median line. This should be of limited extent, and exploration be made entirely by the finger.

He says that it is immaterial whether we drain or not.

His patients' ages varied from 13 to 60 years. There was no immediate mortality attending abdominal section. Six were completely cured—33.3 p. c. Nine died within a year.

One died after a year of perfect health. He believes that cure follows these cases by washing away the germs and their toxines, and by thus improving the circulation in the lymphatics and blood vessels by which disintegration and resorption of tubercular products are favored.

TOTAL EXTIRPATION OF THE STOMACH IN THE CAT.

Cyzerny and Kaiser in 1878 practiced the complete extirpation of the stomach of a cat. Carvello and Pachon in the same animal in 1893; Filipi and Monari in 1895.

In the latter instance the cat weighed 2000 grammes at the time of operation; one month later, 1580. The animal was nourished with milk, farina and the yolk of eggs.

With milk alone the feces were liquid; with mixed diet they were solid. Morsels of bread and meat were equally well digested. Raw meat was not perfectly digested. After eating the animals were easily fatigued. There was no vomiting. Gastrotomy, it would appear from the foregoing, is well borne by the feline tribe.—*Goc. Biog.*, December 15, 1895. *Rev. des Sciences*, April, 1895.

Miscellany.

PEROXIDE OF HYDROGEN IN WOUND TREATMENT.

Dr. Neudorffer recommends a 2 1-2 per cent. solution of peroxide of peroxide of hydrogen as a hemostatic and disinfectant in the treatment of wounds. Through the action of the hydrogen peroxide the fibrin of the blood is separated in minute microscopic fibres, resulting in a local defibrinization of the blood, whereby the harmless little clots close the wounded surface from the surrounding tissue.

The peroxide of hydrogen solution is applied by means of pledgets of absorbent cotton, which are well pressed, leaving them only damp; in this manner they are applied to the bleeding surface only but a second.

Peroxide of hydrogen, according to Neudorffer, may also be used in severe cases of hemorrhage, as bleeding from the nose, where a simple sponging or wiping of the nasal cavities or passage with a 2 1-2 per cent. solution usually checks the bleeding; or a similar result may be obtained by inhaling the solution five or six times through the nostrils in the form a spray, taking deep inhalations at the time.—Pacific Drug and Phy.

THE UNGRATEFUL COUGH.

Coughs are ungrateful things. You find one out in the cold; you take it up, nurse it, make everything of it, dress it up warm, give it all sorts of balsams, and other food it likes, and carry it around in your bosom as if it were a miniature lapdog. And by and by its little bark grows sharp and savage, and—confound the thing!—you find it is a wolf's whelp that you have got there, and he is gnawing in the breast where he has been nestling so long.—Oliver Wendell Holmes.—New York Medical Record.

SENTENCE OF AN ILLEGAL PRACTITIONER.

F. W. R. Waring, alias Thomas McGahan, was recently sentenced in Yonkers, N. Y., to six months' imprisonment and to pay a fine of \$50 for practicing medicine illegally. The man was arrested on the complaint of Dr. E. M. Morrell, secretary of the Westchester County Medical Society. The practice of medicine would appear to have an irresistible attraction for him, for he had already been fined \$100 in 1887, and had been sent to Sing Sing in 1889 for the same offense. Quacks who are driven out of New York through the efforts of the New York County Medical Society very often remove to Yonkers and resume their illegal practice there. For this and other reasons it is suggested that a closer union be formed between the New York and the Westchester County Societies, the two oldest county organizations in the State.—New York Medical Record.

Prescriptions.

Trinitrin, or nitroglycerin, has been recommended as an antineuralgic, especially in cases of inveterate sciatica. It can best be given in a 1 per cent. alcoholic solution, of which the dose is about 3 drops per day, or the following formula may be employed:

R—Sol. trinitrinæ (1 per cent.), mlxxv.
Tinct. capsica, dr. iss.
Aq. menth. pip. ad oz. ss.

S.—Five to ten drops in water three times a day.

The following is a favorite mixture for "sluggish liver and indigestion:"

R—Acid. nitro-hydrochlor., dil. mx.
Tinct. podophyllin, mx.
Succ. taraxaci, dr. j.
Tinct. nucis. vom., mx.
Syrup. zingiberis, dr. ss.
Aq. menth. pip., ad oz. ss.

S.—In water three times a day.

In the flatulent colic of infants—as, of course, a symptomatic treatment—the following gives excellent results:

R—Extracti zingiberis fluid, dr. iss.
Tinct. asafoetidae, dr. iij.
Aq. menth. pip.
Aq. cinnamomi, aa oz. j.
Syrup. simplicis, oz. iv.

M. Sig.—One teaspoonful in water three times a day before meals.—The London Pract.

For urticaria Brocq recommends the following pomade:

R—Acid. carbolic., grs. xv.
Ess. menth. pip., mxv.
Zinci oxid., dr. iij.
Lanolin, oz. ss.
Vaselin., ad. oz. ij.

Ft. Ung.

The application of the ointment can be preceded by antipruriginous lotions of chloral or eau-de-Cologne.

In addition he prescribes internally two to ten of the following pills per day:

R—Quinæ hydrochlor., gr. jss.
Ergotin., gr. jss.
Extract. Belladonn., gr. 1-6.

M. ft. Pil. j.

The "pick-me-ups" of the drug-gist are commonly made up somewhat as follows:

R—Potass. bromid., grs. xv.
 Spirit. chlorof., mxx.
 Tinct. gentian. co., mx.
 Tinct. card. co., mx.
 Spirit. amin. aromat., mx.
 Elixir simpl., dr. ss.
 Aq. menth pip., ad oz. j.

This is the kind of draught dispensed over the counter for the "head" produced by deficient exercise, or by over-eating or drinking.

THE EXTERNAL APPLICATION OF PILOCARPIN IN NE- PHRITIS.

Molliere (Lyon Med., April 14, 1895) advocates the treatment of the various forms of Bright's disease by the inunction into the skin of the trunk of a dilute ointment of nitrate of pilocarpin. This method of administering pilocarpin was first suggested and applied, chiefly for affections of the joints, by the author's brother, Daniel Molliere, in 1882. He believed that he in this way secured a purely local diaphoresis with a minimum dose of the alkaloid, and without the inconveniences and dangers (collapse, etc.) which sometimes attend its subcutaneous injection. The *modus operandi* in cases of Bright's disease is as follows: An ointment is made of nitrate of pilocarpin with white vaseline 1 in 1000 or 2000. About oz. iij of this is rubbed into the skin over the whole of the trunk, which is then enveloped in a thick layer of cotton wool and waxed linen, the whole maintained in place by bandages. This "carapace" may be left on for several hours, or even until the reapplication of the dressing on the following day. In ordinary cases this treatment may be repeated daily for 10 to 15 days. Molliere finds the results of this treatment exceedingly satisfactory, even when, as in his later cases, the usual restriction of diet and other routine treatment have not been combined with the inunction. In acute cases threatened uremia is averted and the dyspnoea is relieved; there is profuse diaphoresis and salivation, increase in the

amount of urine, and diminution of albumen, and a rapid disappearance of anasarca. The cure is rapid and complete. In chronic cases he claims that it produces greater alleviation of symptoms and prolongation of life than any other remedy.

METABOLISM IN THYROID TREATMENT.

Denning (Munch. med. Woch., April 23, 1895) has investigated the effects of the thyroid treatment on metabolism. The researches were carried out upon three healthy but obese individuals. In the first case there was a slight increase in the nitrogenous excretion in the urine, but only to the extent of 5 per cent. The amount of urine remained the same. There was loss of weight to the extent of 2 1-2 kg. In the second case there was an increase in the amount of urea, but the amount of urine showed no increase, although a larger amount of fluid had to be allowed during the treatment owing to thirst. In the third case there was only a slight increase in the urea and nitrogenous products. The amount of urine was increased. There was a loss of weight of some 5 kg., but an increase took place later, even when the regulation diet was adhered to. The author thinks that differences exist in different individuals in respect to the effect of thyroid treatment upon metabolism. Sometimes the variations in the individual are considerable, when care is needed. Albuminuria or glycosuria are looked upon as unfavorable effects; the former is rare. The author has also made some similar experiments upon himself. He lost over 3 kg. in weight, and a reducing body appeared in the urine, which at times gave all the reactions of sugar, but it did not deflect the ray of polarized light; under diabetic diet this body disappeared from the urine. There was no thirst and no polyuria. The author thinks that the phenyl-hydrazin test for sugar is too delicate for ordinary purposes. Thyroid treatment requires to be carried out with prudence.—Br. Med. Jour.

The Times and Register.

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Original.

SOMATOSE AS A TONIC.

A complaint frequently made with regard to meat preparations is that they destroy the appetite, which is usually more or less impaired in conditions of disease, and that when administered for some time they become extremely repugnant to the patient. This must be considered as a serious disadvantage, for it is not enough that a food shall contain a large quantity of nutritive elements, it must also be palatable and exert no disturbing effect upon the digestive apparatus. Somatose differs from all other meat preparations in that it stimulates the appetite and never cloy upon the palate. It is not only an ideal nutrient per se, but awakens the desire for other foods, so as to be well adapted for alimentation in chronic diseases. As it is odorless and practically tasteless it may be administered to sensitive and fastidious patients without their knowledge. Somatose contains the albuminous principles of meat in a form most favorable for immediate absorption and assimilation, and for this reason its administration is rapidly followed by an increase in strength and vital activity—a genuine tonic effect. Attention has been called by Professor Bartley that somatose exerts a direct nutrient action upon the heart muscles, and he explains its effect upon the digestive organs in the same way, i. e., by its furnishing nourishment to the mucous membrane of the stomach. Thompson has found that in cases of typhoid fever attended with great

irritability of the stomach, somatose was well tolerated when other foods were rejected, and he ascribes this to a sedative influence upon the hyperesthetic gastric mucous membrane. The advantages of somatose over other meat preparations may be briefly summarized as follows: 1. It consists of albuminous elements in a form most available for immediate absorption and assimilation, that is in the form of albumoses. 2. It is tasteless, odorless and readily soluble in fluid foods. 3. It stimulates the appetite and enables the patient to dispose of a larger amount of other foods. 4. It has a soothing effect upon the inflamed and hyperesthetic mucous membrane of the digestive tracts. 5. Owing to the high degree of concentration of its albuminous constituents small doses are as effective as much larger quantities of other food products, also rendering it less expensive than the latter.

AN EFFICIENT ANTI-PRURITIC.

Aside from its value as an antiseptic and antimycotic in parasitic affections of the skin, and as a stimulant in chronic dermatoses, Iosophan has been shown to possess decided anti-pruritic properties. It is, therefore, deserving of a trial in chronic cutaneous diseases attended with marked itching, such as prurigo, pruritus ani and vulve, some cases of chronic eczema, etc. The itching in these cases is sometimes so intense as to rob the patient of his night's rest, and even to make life a burden.

Descottes has reported a case of pruritus in which after other remedies had been tried in vain the distressing itching was relieved by an ointment of losophan. Waugh mentions several cases of pruritus ani and vulvae in which a like favorable result followed the use of a 3 per cent. ointment, although previous treatment has been unsuccessful. Saalfeld also recommends its employment in prurigo and pruritus. The results to be obtained from losophan, however, depend to a great extent upon the method of preparation of the ointments. It should always be thoroughly dissolved in oil before being added to the ointment base. It is rarely necessary to exceed the strength of 5 per cent.; and finally it should not be employed in acute cases attended with marked cutaneous irritation.

CAPE MAY AS A HEALTH RESORT.

BY ALBERT E. ROUSSEL, M. D.,
Assistant Professor of Practice and Clinical Medicine, Medico-Chirurgical College; Consulting Physician to the Temporary Home; Visiting Physician to the Howard Hospital.

As a summer resident of Cape May for some ten successive years I have had a fairly-good opportunity of judging of its merits as a health resort, more particularly during the summer months.

During this period of time I have been especially impressed by the marked improvement manifested in that very large group of cases that are presumably benefited by a sea-shore sojourn.

Curiously, however, there has undoubtedly existed a rather wide spread impression that the relative humidity at this resort was higher than at some of its more populous rivals.

With the object of obtaining some definite data upon this subject I wrote for and procured the following interesting table from the Chief of the Weather Bureau at Washington.

As will be noticed from the table,

the relative annual percentage of humidity is but 77, as compared with 80 for Atlantic City, and no one monthly average proves an exception to this general rule.

A study of the temperature-record is equally interesting. Although the mean annual temperature of Cape May is one and a fraction degrees higher than that of Atlantic City, yet it will be noted that the relative difference is but slightly marked during the summer and autumn months, but, on the contrary, is the most pronounced during the remaining portion of the year, which would only tend to emphasize the advantages of the Cape throughout the entire year.

This is especially true when we take into consideration the prevailing direction of the wind—a point of no little importance during the summer season. On account of its insular position, the unwelcome land-breeze is a rare visitor, indeed, a direct northwest wind being alone responsible for its production.

Then, again, the manifest superiority of the magnificent beach, the absence of the particular crowds occasioned by cheap excursions, and last, but not least, the cleanly and well-kept streets must certainly appeal to those who seek health as well as recreation.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Weather Bureau, Washington, D. C., April 25, 1895.

Mark W. Harrington, Chief of Bureau.
Mean Relative Humidity. Percentages.

	January	February	March	April	May	June
Atlantic City	81	79	78	77	80	82
Cape May	78	77	76	75	77	79
	July	August	September	October	November	December
Atlantic City	83	83	82	80	79	80
Cape May	80	81	77	75	73	77

Monthly Mean Temperature.

	January	February	March	April	May	June
Atlantic City..	31.7	33.1	37.9	46.5	57.0	66.7
Cape May....	34.2	35.3	39.7	48.2	58.7	68.2
	July	August	September	October	November	December
Atlantic Cy..	72.3	72.0	67.2	57.1	44.6	35.6
Cape May....	73.6	73.2	68.0	58.9	46.4	37.6

—Medical Bulletin.

TREATMENT OF SPRAINED ANKLES.

The earlier treatment of sprained ankles was not characterized by very direct methods, hence results were very frequently disappointing. The interpretation of the element of rest was oftentimes very poorly made, while a truthful history of the manner and force of infliction did not appear to figure very largely as a guiding element of treatment, hence these methods adopted were often productive of further diseased conditions. Upon the introduction of well-considered immobilization and a just interpretation of the real force and utility of imposed rest results became more uniform. With plaster of paris splints, the starch bandage and the adhesive plaster treatment of Gibney, the surgeon is certainly well equipped with requisite and efficient means. A truthful history and a proper determination of the actual condition as presented in a sprained joint is of paramount importance; the extent of contusion of a joint, whether ligaments or tendons are strained and ruptured, enter largely into treatment and prognosis. To those not having tried Gibney's adhesive plaster treatment, they will find that in many cases it is a successful, easy and comfortable means of treatment. Its ease and

facility of application and satisfactory accomplishment makes a thoroughly desirable method of treatment. It successfully gives "an equable support to tendons and ligaments about the ankle joint, which results in the resolution of all effusion." In severely contused joints, more or less inflammatory states will have to be combated and nothing in our conception is equal to judicious massage of the parts used, of course, along with immobilization. We can well remember following, for the first time in treating a sprained ankle, the suggestion of Florence Nightingale, which was to rub on and about the sprained ankle joint a tablespoonful of warm lard, no more nor no less, but a tablespoonful, must be "rubbed in." To that benighted individual who has never tried it, it remains then for him to realize that a tablespoonful, under these conditions, seems as large as a bushel when he tries to rub it in himself. At that time this treatment was in many cases as efficient as any, which, of course, was owing entirely to the complete massaging the joint received, which seemed to prevent engorgement of blood vessels and the consequent capillary activity resulted in absorption of effusion. We believe that in many ankle sprains massage is as competent to obtain good results as can be obtained in immobilization, and in a much shorter space of time. The immediate application of massage in many of these cases will cause an unusually rapid absorption of effusion and a quick return of parts to normal condition.

The rubbing of a tablespoonful of warm lard on parts is no contemptible gauge of the requisite quantity of massage demanded, as we well know the lard has no virtue aside from the fact of ease of manipulation. Even with the perfection in result as obtained by proper immobilization, massage is destined to assume an important role in the treatment not only of sprained ankle, but other traumatized joints, for it occupies the cure of those conditions between a pure process of repair as represented in delitescence and fixed inflammatory effusion.—Railway Surgeon.

The Times and Register.

A Weekly Journal of Medicine and Surgery.

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PHILADELPHIA, JUNE 29, 1895.

THE ENDEAVOR OF THE UNITED STATES WEATHER BUREAU TO INVESTIGATE THE INFLUENCE OF CLIMATE ON HEALTH.

The commendatory efforts of the National Weather Bureau in compiling statistics regarding the influence of storms and cold and heat waves on the mortality and causation of disease is being pushed as fast as a new experiment can be.

The assistance which may be given this Bureau by local boards of health and others is very great, and the results will be of inestimable value if due interest is taken in the project.

We are inclined to believe that there is more influence in storms and in heat and cold waves upon disease and the causation of diseases than is commonly supposed, and the following extracts from the March circular, sent out by the Weather Bureau, will inform our readers of the methods used in compiling these reports:

"The vital and meteorologic statistics, having been received, will be collated by general averages and by particular and selected events, as the comparison of the general mortality with the average conditions of the weather for the week, and the passage of storms and cold or hot waves, the appearance of epidemics, etc. Also, in instances as well-defined weather disturbances, comparisons of vital and meteorologic statistics will be made by daily periods. For example, a storm appearing in the western part of the country will be followed day by day as it passes eastward across the country, and the illness and deaths reported for these days from the localities traversed will be compiled and compared with the same kind of facts reported both before and after the storm. The same plan of treatment will be pursued in dealing with hot and cold waves.

"By these methods we may hope to be able to give, in time, definite information as to how much and how the accidental and constant variations of the weather affect the sick and well, and in what way the present forecasts and weather charts can be used in both curative and preventive medicine.

"The calendar week has been adopted as the period of time for collecting statistics and making the general comparison; because in longer periods, for instance a month, the evidence of extreme fluctuations in either the meteorologic or sanitary conditions is more or less smoothed out in proportion to the length of time during which the events happened. Also, because it has the advantage over other short arbitrary periods in being familiar to all, and one by which so many of our ordinary events and actions are reckoned.

"A publication containing the collected and compiled facts will be issued monthly. This publication will comprise, in the shape of tables, charts and diagrams, the chief meteorologic factors as observed and recorded by the officials of the Weather Bureau, and the statistics of mortality and morbidity as reported by the various public health offi-

cials and by individual physicians; also brief statements of the general sanitary conditions of the different localities, especially as they may have been influenced by the weather.

"Under no circumstances will discriminating or advisory notices of any locality be published, the entire aim of the Bureau being to collect the facts and statistics for the sanitary and medical profession, and for the general public, to use in such ways and for such purposes as they may see fit."

SOMETHING NEW AND GOOD.

We have at hand one of the most desirable fountain syringes that we have ever seen. While the idea is not entirely new it certainly has been carried out in the manufacture of this instrument with the greatest success ever attained.

The suggestive name of this instrument is "The King," and once seen its immense advantage over the ordinary fountain syringe is at once apparent.

The reservoir of this syringe is made to hold a gallon of water, is of rubber similar to other fountain syringes, but on the front of the bag is sealed a good-size thermometer, regulated to indicate the number of degrees temperature of the water contained in the bag. This will obviate the ill effects one may obtain from too hot or too cold water when using injections.

Another admirable thing in connection with this instrument is the plainly-printed directions on the front of the bag. These indicate the necessary temperature to use with children and adults. The only caution given in the use of this syringe is with reference to cracking the thermometer with too hot water. By placing two cupfuls of cold water in the bag first the hot water may then be added without danger of hurting the instrument.

The cost of this syringe is the same as that of other similar kinds, plus price of thermometer, or \$2.25 retail.

The manufacturers (Charles R. Parmele Co., 98 William street, New York) state that only one size is

made, viz., one gallon, and this is an advantage, for in the treatment of many conditions where hot water syringing is of value there is a tendency to use too little water.

We wish success to the enterprising firm that puts on the market such a beneficial instrument as this.

THE PERENNIAL VALUE OF AN OLD DIPLOMA.

The question as to what becomes of the old diplomas finds a partial answer in the following advertisement, which appeared a short time ago in a Buffalo daily paper.

"For Sale.—A physician's diploma from one of the best colleges in the country. Address Medical News office."

A valued correspondent wrote to the address given and received a reply which we now have. From this we learn that the advertiser is a graduate of nearly 20 years' standing from a reputable medical college in this State, a physician in regular practice in a small town not far from Buffalo, a member of his county society, and presumably regarded as a respectable member of the community in which he lives. How his neighbors are deceived, if this is the opinion they hold of him, may be learned from his own words. He writes:

"The diploma in question was issued by the Castleton, Vt., Medical College to my father, who died a few years ago, is on sheepskin and is in first-class condition. The name and date you can have changed if you wish, but where a man travels away from home it is only customary to change the date, and that is not always done.

"My price for the diploma is \$25.

"Of course it is needless for me to say anything about the ease with which money can be made in the practice of medicine if one goes about it rightly. I would advise anyone following the line of travel and advertise, staying from two to three weeks in a place. One can make from \$25 to \$100 a week. If you should wish to see me personally you

can come to — and return home in a few hours.”

And this from a physician, the son of a physician, a member in good standing of the Genesee (N. Y.) County Medical Society! We should advise this man, who respects his father's name as little as he does the honor of his profession, to follow his own counsel and “travel” away from the company of respectable physicians. His letter, which we have in our possession, is at the disposal of the proper authorities who may wish to learn the fate of this particular diploma.—
New York Medical Record.

Book Reviews.

A CASE OF ACUTE DELIRIUM.

BY THOMAS P. PROUT, M. D.,
New Jersey.
From the Medical News.

SOME MINOR STUDIES IN NERVE CELL DEGENERATION AS PRESENTED BY A CASE OF LOCALIZED CEREBRAL ATROPHY.

THOMAS P. PROUT, M. D.,
State Hospital, Morris Plains, N. J.
Reprinted from the American Journal of
Insanity, April, 1895.

NOTES ON A HITHERTO UNDE- SCRIBED SKIN DISEASE, EN- DEMIC IN CENTRAL AMER- ICA, CALLED BY THE NA- TIVES “BULPISS.”

OTTO LERCH, PH. D., M. D.,
Reprinted from the New Orleans Med.
and Surg. Journal.

ANNUAL REPORTS OF THE MANAGERS AND OFFICERS OF THE STATE HOSPITALS OF NEW JERSEY FOR THE YEAR ENDING OCTOBER 31, 1894.

Correspondence.

Brodnax, La., June 11, '95.
Editor “Times and Register.”

Dr. O. D. Norton, of Cincinnati, O.,
sends me your May issue, in which

on page 432 is an article “Turpentine
as a Hemostatic.”

Forty-five years ago in Augusta, Ga., Dr. O. H. Munson, an old dentist, pulled a tooth for me. It bled so freely that it ran almost in a stream from my mouth. “That won't do,” said he, “here;” and he wet a piece of cotton with turpentine, forced it down into the cavity and held it there for five minutes with his finger. The bleeding stopped. I kept the cotton in place all day for fear of a return. We old timers don't like to see the young fellows run away with remedies of over a half century of regular use. Tell our friend, Dr. Sasse, he should read some of the old books of 1832 to 1843.

Yours very truly,
BEN H. BRODNAX.

Miscellany.

WILL IT BE CONSIDERED DAN- GEROUS TO WEAR CLOTH- ING?

The following is extracted from the June 13 issue of the Boston Medical and Surgical Journal:

“Dr. Leitz, of Munich, according to La Medecine Moderne, has found that a little disc three millimetres in diameter, which has been placed upon a woolen stocking which has been worn, produced 356 colonies on nutrient gelatin. A cotton stocking gave 712 colonies. From a glove which had not been worn, 33 colonies were obtained. Among the colonies there are always a few pathogenic bacteria, the staphylococcus pyogenes albus being the commonest. Leitz has found the typhoid bacillus in clothing after 21 and 26 days; the anthrax bacillus obtained from cloth was virulent at the end of a year. An encouraging fact was that the linen of tubercular patients after profuse night-sweats, did not apparently contain the tubercle bacillus; the results of inoculation were negative.”

MUSIC FOR THE SICK POOR OF PARIS.

A French gentleman, M. Guzman, has left 50,000 francs to the Assistance Publique, the Paris Municipal Charity Department, to defray the cost of musical entertainments to be given to the sick poor in the hospitals and asylums under its control.—Boston Medical and Surgical Journal.

A NEW SIGN IN AUSCULTATION OF THE CHEST.

BY L. F. ALVAREZ, M. D.

At a meeting of the Second Mexican Medical Congress, held in San Luis Potosi, from the 8th to the 10th of last November, Professor Carmona y Valle read a paper on a new sign in auscultation of the chest not mentioned by any writer on physical diagnosis. For over 20 years Professor Carmona y Valle has called the attention of his students to this sign, which consists in a modification of the voice perceived on auscultating the chest at the level of a pleuritic effusion when the patient speaks. The voice is not confused as in the normal state, but clear and more acute than the voice of the person who produced it, and it appears to come from a distance, though located within the chest; it is not vacillating nor tremulous, and this is what distinguishes this sign from egophony. As in egophony the transmitting medium is liquid and not air, as is the case normally.

Professor Carmona y Valle formerly compared this modification of the voice to the sound produced by the cornet when played with the key used to subdue its sound, but since he became acquainted with the telephone he believes that it resembles the timbre of the voice transmitted by that apparatus, hence he calls this the telephonic voice. He believes this sign is of great value in the diagnosis of pleuritic effusion, because, besides being constant in all of them, it is not present in cases where there is no liquid in the pleural cavity. It is of great service in distinguishing pleuritic effusions from pulmonary affections, such as edema of the lungs

and intra-thoracic new growths, which, like pleuritic effusions, produce dullness and absence from thoracic vibrations on palpation.

He mentioned two cases in which the constant absence of the telephonic voice led to the exclusion of pleuritic effusion and to the diagnosis of pleuro-pulmonary tumor, and in both cases at the autopsy a large sarcoma was found.—Pacific Medical Journal.

Do you want a vacation that will be perfection in every respect? If you do you should select one of the famous resorts in northern and eastern New England. Every principal summer resort is reached by the Boston & Maine Railroad. If the mountains are your choice you can surely find an agreeable and comfortable abode for the summer at the White Mountains, while no more healthful or delightful beaches can be found than those scattered along the North Shore, from Boston to the Provinces.

There are abundant opportunities for surf bathing, for yachting, for fishing and for a general good time, while hostleries, superbly equipped, are to be found at every hand.

The summer season opened with the Boston & Maine on June 1, and upon inquiry at any ticket office of the company you will find that excursion tickets may be purchased at reduced rates for every one of the more prominent points in New England. Excursion books, giving routes, rates, hotel and boarding house list, will be mailed free by passenger department, Boston & Maine Railroad, Boston.

DISTURBANCES OF INNERVATION.

Robert B. McCall, M. D., Medical College of Ohio, Cincinnati, now residing at Hamersville, O., writes:

"My confidence in antikamnia is so well established that I have only words of praise. Independently of other observers I have proved to my satisfaction its certain value as a promoter of parturition, whether typical, delayed or complicated, and

its effectiveness in controlling the vomiting of pregnancy. In cases marked by unusual suffering in second stage, pains of nagging sort, frequent or separated by prolonged intervals, accompanied by nervous rigors and mental forebodings, one or two doses, three to five grains each, of antikamnia promptly changes all this.

"If there is a 'sleepy uterus' antikamnia and quinine awake every energy, muscular and nervous, and push labor to an early safe conclusion. Indeed, in any case of labor small doses are helpful, confirming efforts of nature and shortening duration of process.

"I have just finished treatment of an obstinate case of vomiting in pregnancy. A week ago the first dose of antikamnia was given, nervous excitement, mental worry and gastric intolerance rapidly yielded. This case was a typical one and the result is clearly attributable to the masterful influence of your preparation.

"If there is any one drug or preparation that can be made to answer every need of the physician, for the correction of the multitudinous disturbances of innervation that occur in the various diseases he is called upon to treat, that one is antikamnia."

Dr. Welch, the bacteriologist for Johns Hopkins Hospital, has demonstrated that germs will not grow in the immediate vicinity of silver. A sterilized silver wire was introduced into a culture, and while the colonies grew as usual elsewhere, immediately about the wire was free from them. Drs. Halsted and Kelly are making use of this discovery by using silver foil in the dressing of aseptic surgical wounds. The foil is placed immediately in contact with the closed incision in sheets about four inches square, and then the other aseptic dressings are applied.—College and Clinical Record.

THE TREATMENT OF FRACTURE OF THE RADIUS.

Hennequin summarizes the conclusion of his study of this subject in

the *Revue de Chirurgie*, No. 9, 1894, as follows:

1. That it is necessary to reduce the fracture of the lower extremity of the radius.

2. That it is necessary to maintain reduction by means of a suitable apparatus, leaving the fingers entirely free.

3. That the patient must use the hand as soon as possible after union.

4. That massage fulfils but one indication, and must not be employed as the only means of treatment, except in those without displacement. Having no other pretension than the restoration of function after consolidation, its role becomes more restricted if the fingers are left at entire liberty during the treatment.—Railway Surgeon.

CROTON OIL FOR RINGWORM.

An epidemic of ringworm, of the variety trichophyton megalosporon endothrix, occurred recently in an orphan asylum, 48 out of 70 children being affected. Croton oil, which is a destructive rather than a curative agent, was employed. It requires to be carefully handled so as to regulate the amount of destruction, and never used for patches larger than a sixpence. It is necessary to first test the resistancy of the individual skin, hence a commencement is best made by applying a drop of oil, which it is well to remember exerts an effect beyond the spot to which it is applied; this is permitted to remain a few seconds, then vigorously wiped off with absorbent wool. By the degree of irritation produced upon the third, or even the second, day, one can form an idea of the degree of toleration, and in subsequent operations act in accordance therewith, permitting the drop to remain a longer or shorter time. A slight folliculitis is thus occasioned, and the procedure can be repeated, when, after the separation of the crusts, the inflammation has subsided. In this way the diseased hairs can be reduced to a continually diminishing number, and when these are only six or eight at most they can be de-

stroyed by electrolysis.—*Annales de Dermatologie et de Syphiligraphie.*

OBJECTIONABLE ADVERTISEMENTS.

It is amusing to read how wonderfully good some of our exchanges are in the matter of taking advertisements. They will take nothing which is not strictly ethical, whatever that means, and they strongly indorse everything advertised in their pages. The Philadelphia Polyclinic has ever been at the front in decrying certain forms of advertisements. In a late number the editor has a good deal to say on this subject, and adds that he advises all his readers to consult the advertising pages, for "It is our pride to admit nothing that is not meritorious." We did as we were told, and consulted these pages, to find there an advertisement of "A Specific Remedy" for the early and advanced stages of pneumonia! This is glad news, certainly. "Remarkable results" are obtained in tuberculosis and a host of other diseases; "also, in all forms of chronic disease, dependent in part or in whole on the want of oxygen in the vital fluids." We are a little rusty on just what constitute the "vital fluids," but we presume it refers to the gastric juice, or the cerebro-spinal fluid! The whole ad. is a first-rate newspaper one. Then, again, we notice a preparation which has been recommended by physicians for half a century as "The best and purest." "Physicians make no mistake in ordering this brand." While this may be as good as any other brand, yet it is hard to believe that it is the "best and purest." It is also gratifying to know now how we can be kept from making any more mistakes! In other words, the Polyclinic is no better than the rest of us. The whisky it advertises may be "the purest and best," but the few advertisements it contains are neither better nor purer than those of many other journals.—*Journal Practical Medicine.*

To those who anticipate a trip to New England the announcement of the opening of the Providence Line

June 3 will be hailed with delight. This popular route of the Providence & Stonington Steamship Company has always been the favorite way of travel to those people who wish to look upon travel as a pleasure rather than a bore. The steamers Connecticut and Massachusetts are among the handsomest on the Sound, and have the advantage of a main deck dining room, where passengers may while enjoying the cooling breezes of the Sound have the benefit of a first-class cuisine. A distinctive feature of this line enjoyed by none other is the cafe arrangement, where after the dinner is over a regular club service is in effect, such service as only the Providence Line can give, and of this service we must speak particularly, for the management makes it an imperative rule that all its employes observe the greatest politeness, and the courtesies of the company's captains and officers is proverbial. These little courtesies, generally denied the traveling public and which are strongly shown on this line, are one of the principal reasons of its success and popularity.

A NEW MEDICAL JOURNAL.

The Canadian Medical Review is the title of a new medical monthly published in Toronto, and edited by Dr. W. H. B. Aikins.

DR. MAILLOT.

A monument to the memory of the late Dr. Maillot is to be erected, and already the sum of 10,000 francs has been collected for it.

A new fuel made in France is of coal dust compressed into bricks and soaked with chemicals, which make it last a long time in a glow when once alight.

Massachusetts has also gone into the drug business, and its Board of Health has arranged to supply diphtheria antitoxin.

The London Daily Telegraph, of March 28, 1895, gives an account of Dr. De Bossy, who is in active practice at the age of 102 years.

A French physician who has written approvingly and at some length on bicycling for women believes that the training it gives to hand and eyes and muscles will make women walk better and carry themselves more gracefully and freely than they do. He has noticed that while a few women walk well and preserve a satisfactory balance, the effect is ruined by their indecision and uncertainty of movement at street crossings. Other weaknesses that are very prevalent among women in middle life are obesity and shortness of breath, and those, he believes, are to be overcome by riding the wheel.

Dr. John H. McCollom is to be appointed superintendent of the new Boston Hospital for Contagious Diseases attached to the City Hospital. Dr. McCollom is now bacteriologist to the Board of Health.

DOCTORS AND INCURABLES.

Reynold's Newspaper comes out with the declaration that physicians arrange with the friends of patients suffering from an incurable disease for the death of such patients. This is a curious charge which some of our English confreres seem to have taken seriously. For our part, it seems to us as if nothing could be more silly or more remote from the truth.

THE CHEMICAL COMPOSITION OF OYSTERS.

Mons. Chetin makes a report to the Academie de Medicine upon the chemical richness of oysters in bromine, iodine, fluorine and in phosphorus. Portuguese oysters contain a gramme of organic phosphate to the dozen. Ordinary European oysters contain one-third less. This statement in regard to the phosphatic richness of oysters will be a comfort to many oyster lovers, and may in a measure offset the unpleasant reports about the capacity of the oyster for nourishing tubercle bacilli.—N. Y. Med. Record.

The Congress of the Obstetric Society of France held a meeting in April last under the presidency of M. Gueniout. Dr. Gaulard discussed the subject of scarlet fever and the albuminuria of pregnancy. Other papers were read upon "The Causes of Puerperal Eclampsia," "The Grip in the Puerperal State" and upon "Abnormal Forms of Toxemia in Pregnancy." M. Queirel noted that in an epidemic of influenza 35 puerperal women had been affected. In all cases the influenza took the pulmonary form. There were no deaths from the disease nor any serious complications produced.

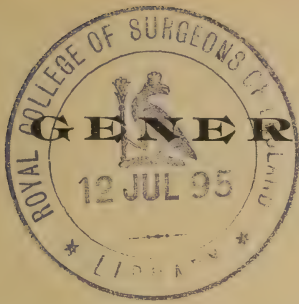
The French Society of Ophthalmology held its 13th session in Paris, May 6 to May 9. M. De Wecker made a report upon the use of large subconjunctival injections. He said that the injection of a drop of a solution of sublimate, one or two per cent. in strength, had no antiseptic effect. He injected an entire syringe of solution of sublimate, 1 to 2000, and in ulcers of the cornea his results had been very surprising. The injections were good, he said, in infectious ulcers, but of no use in other forms.

Dr. John F. Hill, of Augusta, Me., will, it is said, be the Republican candidate for Governor of the State of Maine. Maine has already had one medical man as Governor, and he ruled the State well. We wish Dr. Hill success.

Dr. Harold C. Ernst has been appointed professor of bacteriology in the Harvard Medical School.

Dr. Theobald Smith, formerly chief of the Division of Animal Pathology in the United States Department of Agriculture, has been appointed bacteriologist of the Massachusetts State Board of Health and professor of applied zoology in Harvard.

The Legislature of the State of Rhode Island has recently passed an act for the regulation of the practice of medicine.



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